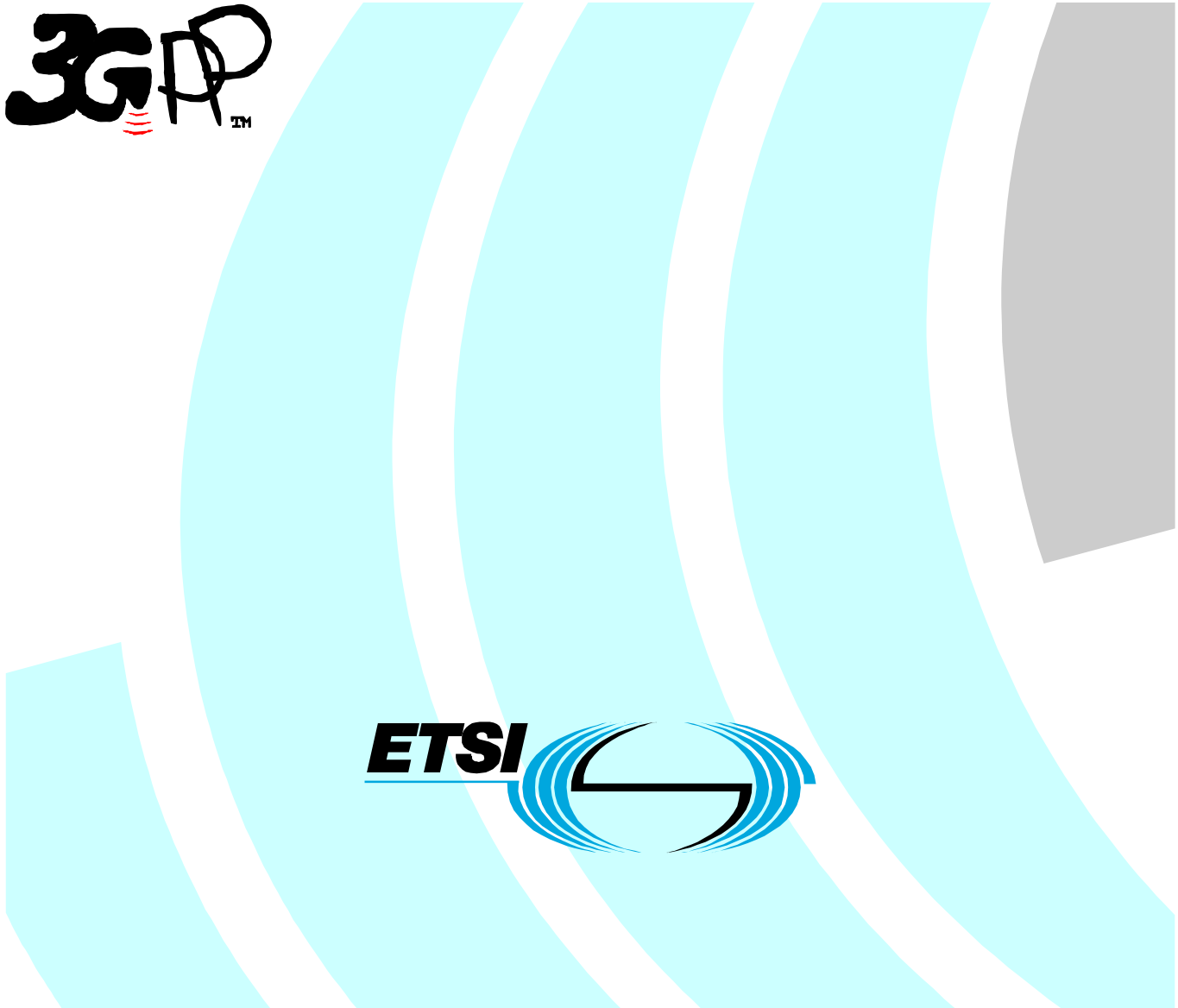
# ETSI TS 125 433 V6.12.0 (2006-12)

*Technical Specification*

**Universal Mobile Telecommunications System (UMTS);**
**UTRAN Iub interface Node B**
**Application Part (NBAP) signalling**
**(3GPP TS 25.433 version 6.12.0 Release 6)**



Reference
RTS/TSGR-0325433v6c0

Keywords
UMTS

***ETSI***

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
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# Foreword

This Technical Specification has been produced by the 3GPP.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

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- x the first digit:
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

# 1 Scope

The present document specifies the radio network layer signalling protocol called Node B Application Part (NBAP) specification to be used for Control Plane over Iub Interface.

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] 3GPP TS 25.401: "UTRAN Overall Description".

[2] 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Signalling for DCH Data Streams".

[3] CCITT Recommendation X.731 (01/92): "Information Technology – Open Systems Interconnection – Systems Management: State Management function".

[4] 3GPP TS 25.215: "Physical layer – Measurements (FDD)".

[5] 3GPP TS 25.225: "Physical layer – Measurements (TDD)".

[6] 3GPP TS 25.430: "UTRAN Iub General Aspect and Principle".

[7] 3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".

[8] 3GPP TS 25.212: "Multiplexing and channel coding (FDD)".

[9] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[10] 3GPP TS 25.214: "Physical layer procedures (FDD)".

[11] ITU-T Recommendation X.691, (07/2002) "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".

[12] ITU-T Recommendation X.680, (07/2002) "Information Technology - Abstract Syntax Notation One (ASN.1):Specification of basic notation".

[13] ITU-T Recommendation X.681, (07/2002) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification".

[14] 3GPP TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".

[15] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".

[16] 3GPP TS 25.427: "UTRAN Iur/Iub Interface User Plane Protocol for DCH Data Stream".

[17] 3GPP TS 25.402: "Synchronisation in UTRAN Stage2".

[18] 3GPP TS 25.331: "RRC Protocol Specification".

[19] 3GPP TS25.221: "Physical channels and mapping of transport channels onto physical channels[TDD]".

[20] 3GPP TS 25.223: "Spreading and modulation (TDD)".

[21] 3GPP TS 25.224: "Physical Layer Procedures (TDD)".

[22] 3GPP TS 25.133: "Requirements for support of Radio Resource management (FDD)".

[23] 3GPP TS 25.123: "Requirements for support of Radio Resource management (TDD)".

[24] 3GPP TS 25.435: "UTRAN Iub Interface: User Plane Protocols for Common Transport Channel Data Streams".

[25] 3GPP TS 25.302: "Services Provided by the Physical Layer".

[26] 3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".

[27] ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".

[28] RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".

[29] IETF RFC 2460 "Internet Protocol, Version 6 (IPv6) Specification".

[30] IETF RFC 768 "User Datagram Protocol", (8/1980)

[31] 3GPP TS 25.434: "UTRAN Iub Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ".

[32] 3GPP TS 25.321: "MAC protocol specification".

[33] 3GPP TS 25.306: "UE Radio Access capabilities".

[34] 3GPP TS 25.222: "Multiplexing and Channel Coding (TDD)".

[35] IETF RFC 2474 "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".

[36] IETF RFC 2475 "An Architecture for Differentiated Services".

[37] 3GPP TS 25.304: "User Equipment (UE) procedures in idle mode and procedures for cell reselection in connected mode".

[38] 3GPP TS 25.309: "FDD Enhanced Uplink; Overall description; Stage 2".

# 3 Definitions, Symbols and Abbreviations

## 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

**CRNC Communication Context:** The CRNC Communication Context contains the necessary information for the CRNC for communication with a specific UE. The CRNC Communication Context is identified by the CRNC Communication Context ID.

**Elementary Procedure**: The NBAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between the CRNC and the Node B.

An EP consists of an initiating message and possibly a response message.

Two kinds of EPs are used:

- **Class 1**: Elementary Procedures with response (success or failure).

- **Class 2**: Elementary Procedures without response.

For **Class 1** EPs, the types of responses can be as follows:

Successful

- A signalling message explicitly indicates that the elementary procedure has been successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.

**Class 2** EPs are considered always successful.

**Node B Communication Context:** The Node B Communication Context contains the necessary information for the Node B for communication with a specific UE. The Node B Communication Context is created by the Radio Link Setup procedure and deleted by the Radio Link Deletion procedure when deleting the last Radio Link within the Node B Communication Context. The Node B Communication Context is identified by the Node B Communication Context ID.

**Prepared Reconfiguration:** A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist anymore only after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed. In particular, the Prepared Reconfiguration still exists if the object (e.g. Radio Link) concerned by the Synchronised Radio Link Reconfiguration (e.g. in the case of an HS-DSCH Setup) is removed, but the Node B Communication Context still exists.

## 3.2 Symbols

Void.

## 3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

| | |
|---|---|
| A-GPS | Assisted GPS |
| AICH | Acquisition Indicator Channel |
| ALCAP | Access Link Control Application Part |
| ASN.1 | Abstract Syntax Notation One |
| BCCH | Broadcast Control Channel |
| CCPCH | Common Control Physical Channel |
| CFN | Connection Frame Number |
| CM | Compressed Mode |
| CPICH | Common Pilot Channel |
| CRNC | Controlling Radio Network Controller |
| DCH | Dedicated Channel |
| DGPS | Differential GPS |
| DL | Downlink |
| DPCCH | Dedicated Physical Control Channel |
| DPCH | Dedicated Physical Channel |
| DPDCH | Dedicated Physical Data Channel |
| DSCH | Downlink Shared Channel |
| E-DCH | Enhanced UL DCH |
| FACH | Forward Access Channel |
| FDD | Frequency Division Duplex |
| F-DPCH | Fractional DPCH |
| FP | Frame Protocol |
| GPS | Global Positioning System |
| HSDPA | High Speed Downlink Packet Access |
| HS-DSCH | High Speed Downlink Shared Channel |
| HS-PDSCH | High Speed Physical Downlink Shared Channel |

| | |
|---|---|
| HS-SCCH | High Speed Shared Control Channel |
| HS-SICH | High Speed Shared Information Channel |
| IP | Internet Protocol |
| IPDL | Idle Periods in the DownLink |
| ISCP | Interference Signal Code Power |
| L1 | Layer 1 |
| L2 | Layer 2 |
| MIB | Master Information Block |
| MICH | MBMS Notification Indicator Channel |
| NBAP | Node B Application Part |
| NI | MBMS Notification Indicator |
| O&M | Operation and Maintenance |
| PCCPCH | Primary Common Control Physical Channel |
| PCH | Paging Channel |
| PDSCH | Physical Downlink Shared Channel |
| PICH | Paging Indication Channel |
| PUSCH | Physical Uplink Shared Channel |
| RACH | Random Access Channel |
| RL | Radio Link |
| RLS | Radio Link Set |
| RNC | Radio Network Controller |
| RRC | Radio Resource Control |
| SB | Scheduling Block |
| SCCPCH | Secondary Common Control Physical Channel |
| SCH | Synchronisation Channel |
| SCTD | Space Code Transmit Diversity |
| SIB | System Information Block |
| SRNC | Serving Radio Network Controller |
| STTD | Space Time Transmit Diversity |
| TDD | Time Division Duplex |
| TFC | Transport Format Combination |
| TFCI | Transport Format Combination Indicator |
| TFCS | Transport Format Combination Set |
| TFS | Transport Format Set |
| TPC | Transmit Power Control |
| TSTD | Time Switched Transmit Diversity |
| UARFCN | UTRA Absolute Radio Frequency Channel Number |
| UDP | User Datagram Protocol |
| UE | User Equipment |
| UL | Uplink |
| UMTS | Universal Mobile Telecommunications System |
| USCH | Uplink Shared Channel |
| UTRA | Universal Terrestrial Radio Access |
| UTRAN | Universal Terrestrial Radio Access Network |

# 4 General

## 4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the Node B exactly and completely. The CRNC functional behaviour is left unspecified. The Reset procedure is an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:

    1) Functionality which "shall" be executed

The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.

2) Functionality which "shall, if supported" be executed

The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.

- Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included. For requirements on including *Criticality Diagnostics* IE, see section 10. For examples on how to use the *Criticality Diagnostics* IE, see Annex C.

## 4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism in which all current and future messages, and IEs or groups of related IEs, include Id and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

## 4.3 Specification Notations

For the purposes of the present document, the following notations apply:

[FDD] This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD. This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section following the heading applies only to FDD.

[TDD] This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD.

[3.84Mcps TDD] This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.

[1.28Mcps TDD] This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps TDD.

[FDD - …] This tagging indicates that the enclosed text following the "[FDD - " applies only to FDD. Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.

[TDD - …] This tagging indicates that the enclosed text following the "[TDD - " applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.

[3.84Mcps TDD - …] This tagging indicates that the enclosed text following the "[3.84Mcps TDD - " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 3.84Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.

[1.28Mcps TDD - …] This tagging indicates that the enclosed text following the "[1.28Mcps TDD - " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps TDD specific paragraphs.

Procedure When referring to an elementary procedure in the specification the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.

Message When referring to a message in the specification the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.

IE When referring to an information element (IE) in the specification the *Information Element Name* is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. *Transport Format Set* IE.

Value of an IE When referring to the value of an information element (IE) in the specification the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)".

# 5 NBAP Services

## 5.1 Parallel Transactions

Unless explicitly indicated in the procedure description, at any instance in time one protocol peer shall have a maximum of one ongoing dedicated NBAP procedure related to a certain Node B Communication Context.

# 6 Services Expected from Signalling Transport

NBAP requires an assured in-sequence delivery service from the signalling bearer, and notification if the assured in-sequence delivery service is no longer available.

# 7 Functions of NBAP

The NBAP protocol provides the following functions:

- Cell Configuration Management. This function gives the CRNC the possibility to manage the cell configuration information in a Node B.
- Common Transport Channel Management. This function gives the CRNC the possibility to manage the configuration of Common Transport Channels in a Node B.
- System Information Management. This function gives the CRNC the ability to manage the scheduling of System Information to be broadcast in a cell.
- Resource Event Management. This function gives the Node B the ability to inform the CRNC about the status of Node B resources.
- Configuration Alignment. This function gives the CRNC and the Node B the possibility to verify and enforce that both nodes have the same information on the configuration of the radio resources.
- Measurements on Common Resources. This function allows the CRNC to initiate measurements on common resources in the Node B. The function also allows the Node B to report the result of the measurements.
- Radio Link Management. This function allows the CRNC to manage radio links using dedicated resources in a Node B.

- Radio Link Supervision. This function allows the CRNC to report failures and restorations of a Radio Link.
- Compressed Mode Control [FDD]. This function allows the CRNC to control the usage of compressed mode in a Node B.
- Measurements on Dedicated Resources. This function allows the CRNC to initiate measurements on dedicated resources in the Node B. The function also allows the Node B to report the result of the measurements.
- DL Power Drifting Correction [FDD]. This function allows the CRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links.
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.
- Physical Shared Channel Management. This function allows the CRNC to manage physical resources in the Node B belonging to High Speed Downlink Shared Channels and High Speed Shared Control Channels [TDD - and High Speed Shared Indication Channels and Shared Channels (USCH/DSCH)].
- DL Power Timeslot Correction [TDD]. This function enables the Node B to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.
- Cell Synchronisation [TDD]. This function allows the synchronisation of cells or Node Bs via the air interface.
- Information Exchange. This function allows the CRNC to initiate information provision from the Node B. The function also allows the Node B to report the requested information.
- Bearer Rearrangement. This function allows the Node B to indicate the need for bearer re-arrangement for a Node B Communication Context. The function also allows the CRNC to re-arrange bearers for a Node B Communication Context.
- MBMS Notification. This function allows the CRNC to send MBMS Notification indicators to the Node B to be broadcasted in a cell.

The mapping between the above functions and NBAP elementary procedures is shown in the table below.

**Table 1: Mapping between functions and NBAP elementary procedures**

| Function | Elementary Procedure(s) |
|---|---|
| Cell Configuration Management | a) Cell Setup<br>b) Cell Reconfiguration<br>c) Cell Deletion |
| Common Transport Channel Management | a) Common Transport Channel Setup<br>b) Common Transport Channel Reconfiguration<br>c) Common Transport Channel Deletion |
| System Information Management | System Information Update |
| Resource Event Management | a) Block Resource<br>b) Unblock Resource<br>c) Resource Status Indication |
| Configuration Alignment | a) Audit Required<br>b) Audit<br>c) Reset |
| Measurements on Common Resources | a) Common Measurement Initiation<br>b) Common Measurement Reporting<br>c) Common Measurement Termination<br>d) Common Measurement Failure |
| Radio Link Management. | a) Radio Link Setup<br>b) Radio Link Addition<br>c) Radio Link Deletion<br>d) Unsynchronised Radio Link Reconfiguration<br>e) Synchronised Radio Link Reconfiguration Preparation<br>f) Synchronised Radio Link Reconfiguration Commit<br>g) Synchronised Radio Link Reconfiguration Cancellation<br>h) Radio Link Pre-emption<br>i) Radio Link Activation<br>j) Radio Link Parameter Update |
| Radio Link Supervision. | a) Radio Link Failure<br>b) Radio Link Restoration |
| Compressed Mode Control [FDD] | a) Radio Link Setup<br>b) Radio Link Addition<br>c) Compressed Mode Command<br>d) Unsynchronised Radio Link Reconfiguration<br>e) Synchronised Radio Link Reconfiguration Preparation<br>f) Synchronised Radio Link Reconfiguration Commit<br>g) Synchronised Radio Link Reconfiguration Cancellation |
| Measurements on Dedicated Resources | a) Dedicated Measurement Initiation<br>b) Dedicated Measurement Reporting<br>c) Dedicated Measurement Termination<br>d) Dedicated Measurement Failure |
| DL Power Drifting Correction [FDD] | Downlink Power Control |
| Reporting of General Error Situations | Error Indication |
| Physical Shared Channel Management | Physical Shared Channel Reconfiguration |
| DL Power Timeslot Correction [TDD] | Downlink Power Timeslot Control |
| Cell Synchronisation [TDD] | a) Cell Synchronisation Initiation<br>b) Cell Synchronisation Reconfiguration<br>c) Cell Synchronisation Reporting<br>d) Cell Synchronisation Termination<br>e) Cell Synchronisation Failure<br>f) Cell Synchronisation Adjustment |
| Information Exchange | a) Information Exchange Initiation<br>b) Information Reporting<br>c) Information Exchange Termination<br>d) Information Exchange Failure |

| Function | Elementary Procedure(s) |
|---|---|
| Bearer Re-arrangement | a) Bearer Re-arrangement Indication<br>b) Unsynchronised Radio Link Reconfiguration<br>c) Synchronised Radio Link Reconfiguration Preparation<br>d) Synchronised Radio Link Reconfiguration Commit<br>e) Synchronised Radio Link Reconfiguration Cancellation |
| MBMS Notification | a) MBMS Notification Update |

# 8 NBAP Procedures

## 8.1 Elementary Procedures

NBAP procedures are divided into common procedures and dedicated procedures.

- NBAP common procedures are procedures that request initiation of a Node B Communication Context for a specific UE in Node B or are not related to a specific UE. NBAP common procedures also incorporate logical O&M [1] procedures.

- NBAP dedicated procedures are procedures that are related to a specific Node B Communication Context in Node B. This Node B Communication Context is identified by a Node B Communication Context identity.

The two types of procedures may be carried on separate signalling links.

In the following tables, all EPs are divided into Class 1 and Class 2 EPs:

**Table 2: Class 1**

| Elementary Procedure | Message | Successful Outcome | Unsuccessful Outcome |
|---|---|---|---|
| | | Response message | Response message |
| Cell Setup | CELL SETUP REQUEST | CELL SETUP RESPONSE | CELL SETUP FAILURE |
| Cell Reconfiguration | CELL RECONFIGURATION REQUEST | CELL RECONFIGURATION RESPONSE | CELL RECONFIGURATION FAILURE |
| Cell Deletion | CELL DELETION REQUEST | CELL DELETION RESPONSE | |
| Common Transport Channel Setup | COMMON TRANSPORT CHANNEL SETUP REQUEST | COMMON TRANSPORT CHANNEL SETUP RESPONSE | COMMON TRANSPORT CHANNEL SETUP FAILURE |
| Common Transport Channel Reconfiguration | COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST | COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE | COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE |
| Common Transport Channel Deletion | COMMON TRANSPORT CHANNEL DELETION REQUEST | COMMON TRANSPORT CHANNEL DELETION RESPONSE | |
| Physical Shared Channel Reconfiguration | PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST | PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE | PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE |
| Audit | AUDIT REQUEST | AUDIT RESPONSE | AUDIT FAILURE |
| Block Resource | BLOCK RESOURCE REQUEST | BLOCK RESOURCE RESPONSE | BLOCK RESOURCE FAILURE |
| Radio Link Setup | RADIO LINK SETUP REQUEST | RADIO LINK SETUP RESPONSE | RADIO LINK SETUP FAILURE |
| System Information Update | SYSTEM INFORMATION UPDATE REQUEST | SYSTEM INFORMATION UPDATE RESPONSE | SYSTEM INFORMATION UPDATE FAILURE |
| Common Measurement Initiation | COMMON MEASUREMENT INITIATION REQUEST | COMMON MEASUREMENT INITIATION RESPONSE | COMMON MEASUREMENT INITIATION FAILURE |
| Radio Link Addition | RADIO LINK ADDITION REQUEST | RADIO LINK ADDITION RESPONSE | RADIO LINK ADDITION FAILURE |
| Radio Link Deletion | RADIO LINK DELETION REQUEST | RADIO LINK DELETION RESPONSE | |
| Synchronised Radio Link Reconfiguration Preparation | RADIO LINK RECONFIGURATION PREPARE | RADIO LINK RECONFIGURATION READY | RADIO LINK RECONFIGURATION FAILURE |
| Unsynchronised Radio Link Reconfiguration | RADIO LINK RECONFIGURATION REQUEST | RADIO LINK RECONFIGURATION RESPONSE | RADIO LINK RECONFIGURATION FAILURE |
| Dedicated Measurement Initiation | DEDICATED MEASUREMENT INITIATION REQUEST | DEDICATED MEASUREMENT INITIATION RESPONSE | DEDICATED MEASUREMENT INITIATION FAILURE |
| Reset | RESET REQUEST | RESET RESPONSE | |
| Cell Synchronisation Initiation [TDD] | CELL SYNCHRONISATION INITIATION REQUEST | CELL SYNCHRONISATION INITIATION RESPONSE | CELL SYNCHRONISATION INITIATION FAILURE |
| Cell Synchronisation Reconfiguration [TDD] | CELL SYNCHRONISATION RECONFIGURATION REQUEST | CELL SYNCHRONISATION RECONFIGURATION RESPONSE | CELL SYNCHRONISATION RECONFIGURATION FAILURE |
| Cell Synchronisation Adjustment [TDD] | CELL SYNCHRONISATION ADJUSTMENT REQUEST | CELL SYNCHRONISATION ADJUSTMENT RESPONSE | CELL SYNCHRONISATION ADJUSTMENT FAILURE |
| Information Exchange Initiation | INFORMATION EXCHANGE INITIATION REQUEST | INFORMATION EXCHANGE INITIATION RESPONSE | INFORMATION EXCHANGE INITIATION FAILURE |

**Table 3: Class 2**

| Elementary Procedure | Message |
|---|---|
| Resource Status Indication | RESOURCE STATUS INDICATION |
| Audit Required | AUDIT REQUIRED INDICATION |
| Common Measurement Reporting | COMMON MEASUREMENT REPORT |
| Common Measurement Termination | COMMON MEASUREMENT TERMINATION REQUEST |
| Common Measurement Failure | COMMON MEASUREMENT FAILURE INDICATION |
| Synchronised Radio Link Reconfiguration Commit | RADIO LINK RECONFIGURATION COMMIT |
| Synchronised Radio Link Reconfiguration Cancellation | RADIO LINK RECONFIGURATION CANCEL |
| Radio Link Failure | RADIO LINK FAILURE INDICATION |
| Radio Link Restoration | RADIO LINK RESTORE INDICATION |
| Dedicated Measurement Reporting | DEDICATED MEASUREMENT REPORT |
| Dedicated Measurement Termination | DEDICATED MEASUREMENT TERMINATION REQUEST |
| Dedicated Measurement Failure | DEDICATED MEASUREMENT FAILURE INDICATION |
| Downlink Power Control [FDD] | DL POWER CONTROL REQUEST |
| Compressed Mode Command [FDD] | COMPRESSED MODE COMMAND |
| Unblock Resource | UNBLOCK RESOURCE INDICATION |
| Error Indication | ERROR INDICATION |
| Downlink Power Timeslot Control [TDD] | DL POWER TIMESLOT CONTROL REQUEST |
| Radio Link Pre-emption | RADIO LINK PREEMPTION REQUIRED INDICATION |
| Cell Synchronisation Reporting [TDD] | CELL SYNCHRONISATION REPORT |
| Cell Synchronisation Termination [TDD] | CELL SYNCHRONISATION TERMINATION REQUEST |
| Cell Synchronisation Failure [TDD] | CELL SYNCHRONISATION FAILURE INDICATION |
| Information Reporting | INFORMATION REPORT |
| Information Exchange Termination | INFORMATION EXCHANGE TERMINATION REQUEST |
| Information Exchange Failure | INFORMATION EXCHANGE FAILURE INDICATION |
| Bearer Re-arrangement | BEARER REARRANGEMENT INDICATION |
| Radio Link Activation | RADIO LINK ACTIVATION COMMAND |
| Radio Link Parameter Update | RADIO LINK PARAMETER UPDATE INDICATION |
| MBMS Notification Update | MBMS NOTIFICATION UPDATE COMMAND |

# 8.2 NBAP Common Procedures

## 8.2.1 Common Transport Channel Setup

### 8.2.1.1 General

This procedure is used for establishing the necessary resources in Node B, regarding Secondary CCPCH, PICH, PRACH, AICH [FDD], FACH, PCH, RACH and FPACH [1.28Mcps TDD].

### 8.2.1.2 Successful Operation

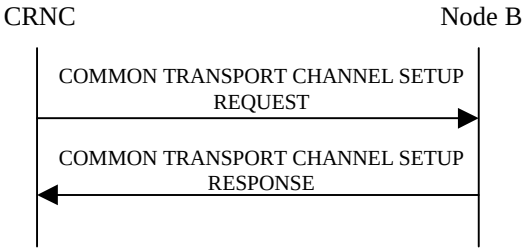



**Figure 1: Common Transport Channel Setup procedure, Successful Operation**

The procedure is initiated with a COMMON TRANSPORT CHANNEL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD - one Secondary CCPCH, and FACHs, PCH, PICH and MICH related to that Secondary CCPCH], or
- [TDD - one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH and MICH related to that group of Secondary CCPCHs], or
- one [1.28Mcps TDD - or more] PRACH, one RACH and one AICH [FDD] and one FPACH[1.28Mcps TDD] related to that PRACH.

**Secondary CCPCH:**

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[FDD – If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FDD S-CCPCH Frame Offset* IE within the *Secondary CCPCH* IE, the Node B shall apply the indicated frame offset for the concerned Secondary CCPCH.]

[TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[3.84Mcps TDD -– When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *TFCI Presence* IE, the Node B shall apply the indicated TFCI presence in the timeslot of the S-CCPCH. If all the S-CCPCHs defined in a timeslot do not have a *TFCI Presence* IE included, the Node B shall apply a TFCI field in the lowest numbered S-CCPCH of the timeslot.]

[TDD - FACHs and PCH may be mapped onto a CCTrCH which may consist of several Secondary CCPCHs]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FACH Parameters* IE, the Node B shall configure and activate the indicated FACH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PCH Parameters* IE, the Node B shall configure and activate the concerned PCH and the associated PICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD - If the *PCH Power* IE is included in the *PCH Parameters* IE of the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall use this value as the power at which the PCH shall be transmitted.]

[TDD - If the *TSTD Indicator* IE for the S-CCPCH is included and is set to "active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall activate TSTD diversity for all S-CCPCHs defined in the message that are not beacon channels [19,21]. If the *TSTD Indicator* IE is not included or is set to "not active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall not activate TSTD diversity for the S-CCPCHs defined in the message.]

[1.28Mcps TDD - If the *TSTD Indicator* IE for the PICH is included and is set to "active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST message, the Node B shall activate TSTD diversity for the PICH if it is not a beacon channel [19,21]. If the *TSTD Indicator* IE is set to "not active" or the *TSTD Indicator* IE is not included for the PICH in the COMMON TRANSPORT CHANNEL SETUP REQUEST message, the Node B shall not activate TSTD diversity for the PICH.]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *MICH Parameters* IE, the Node B shall configure and activate the concerned MICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

**PRACH:**

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PRACH* IE, the Node B shall configure and activate the indicated PRACH and the associated RACH [FDD - and the associated AICH] according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

**[1.28Mcps TDD - FPACH]:**

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FPACH* IE, the Node B shall configure and activate the indicated FPACH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

Where more than one FPACH is defined, the FPACH that Node B should use is defined by the UpPCH signature (SYNC_UL) code that the UE used. The FPACH number = N mod M where N denotes the signature number (0..7) and M denotes the number of FPACHs that are defined in a cell. The FPACH number is in ascending order by *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

**General:**

After successfully configuring the requested common transport channels and the common physical channels , the Node B shall store the value of *Configuration Generation ID* IE and it shall respond with the COMMON TRANSPORT CHANNEL SETUP RESPONSE message with the *Common Transport Channel ID* IE, the *Binding ID* IE and the *Transport Layer Address* IE for the configured common transport channels.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes the *Transport Layer Address* and *Binding ID* IEs, the Node B may use the transport layer adress and the binding identifier received from the CRNC when establishing a transport bearer for the indicated common transport channels.

After a successful procedure and once the transport bearers are established, the configured common transport channels and the common physical channels shall adopt the state Enabled [6] in the Node B and the common physical channels exist on the Uu interface.

### 8.2.1.3 Unsuccessful Operation

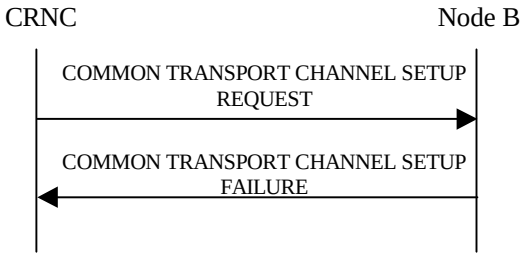



**Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation**

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message. The channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with a COMMON TRANSPORT CHANNEL SETUP FAILURE message.

Typical cause values are as follows:

**Radio Network Layer Cause:**

- Cell not available
- Power level not supported
- Node B Resources unavailable
- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Common Transport Channel Type not supported
- MICH not supported

**Transport Layer Cause:**

- Transport Resources Unavailable

**Miscellaneous Cause:**

- O&M Intervention
- Control processing overload
- HW failure

#### 8.2.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, and that IE contains [FDD - neither the *FACH Parameters* IE nor the *PCH Parameters* IE] [TDD – neither the *FACH* IE nor the *PCH* IE], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

[TDD - If the *FACH CCTrCH Id* IE or the *PCH CCTrCH Id* IE does not equal the *SCCPCH CCTrCH Id* IE, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[TDD - If the *TDD Physical Channel Offset* IE, the *Repetition Period* IE, and the *Repetition Length* IE are not equal for each SCCPCH configured within the CCTrCH or the *TFCI Presence* IE are not equal for any two SCCPCHs configured in the same timeslot, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[1.28Mcps TDD - If the *Common Transport Channel ID* IE, and the *Transport Format Set* IE are not equal for each RACH configured in PRACH, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

If the state is already Enabled or Disabled [6] for at least one channel in the COMMON TRANSPORT CHANNEL SETUP REQUEST message which is received, the Node B shall reject the configuration of all channels with the *Cause* IE set to "Message not compatible with receiver state".

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport channel intended to be established, the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *MICH Parameters* IE but not the *FACH Parameters* IE [FDD – for one S-CCPCH], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

## 8.2.2 Common Transport Channel Reconfiguration

### 8.2.2.1 General

This procedure is used for reconfiguring common transport channels and/or common physical channels, while they still might be in operation.

### 8.2.2.2 Successful Operation

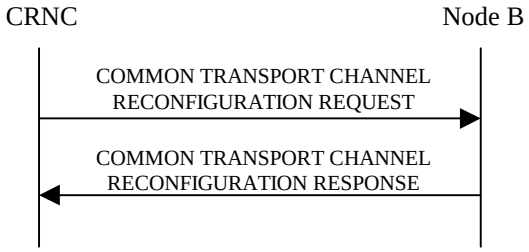



**Figure 3: Common Transport Channel Reconfiguration, Successful Operation**

The procedure is initiated with a COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD - FACHs, one PCH, one PICH and/or one MICH related to one Secondary CCPCH], or
- [TDD - one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH and MICH related to that group of Secondary CCPCHs], or
- one RACH and/or one AICH[FDD] and/or one FPACH[1.28Mcps TDD] related to one PRACH.

**SCCPCH:**

[TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *SCCPCH Power* IE, the Node B shall reconfigure the maximum power that the indicated S-CCPCH shall use.]

**FACH:**

If the *FACH Parameters* IE is present, the Node B shall reconfigure the indicated FACH(s).

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the indicated FACH may use.]

[1.28Mcps TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the indicated FACH may use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the indicated FACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the indicated FACH shall use.

**PCH:**

If the *PCH Parameters* IE is present, the Node B shall reconfigure the indicated PCH.

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

[1.28Mcps TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the PCH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the PCH shall use.

**PICH:**

If the *PICH Parameters* IE is present, the Node B shall reconfigure the indicated PICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PICH Power* IE, the Node B shall reconfigure the power that the PICH shall use.

**MICH:**

If the *MICH Parameters* IE is present, the Node B shall reconfigure the MICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *MICH Power* IE, the Node B shall reconfigure the power that the MICH shall use.

**[FDD - PRACH]:**

If the *PRACH Parameters* IE is present, the Node B shall reconfigure the indicated PRACH(s).

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Preamble Signatures* IE, the Node B shall reconfigure the preamble signatures that the indicated PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Allowed Slot Format Information* IE, the Node B shall reconfigure the slot formats that the indicated PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *RACH Sub Channel Numbers* IE, the Node B shall reconfigure the sub channel numbers that the indicated PRACH shall use.

**[FDD - AICH]:**

If the *AICH Parameters* IE is present, the Node B shall reconfigure the indicated AICH(s).

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *AICH Power* IE, the Node B shall reconfigure the power that the indicated AICH shall use.

**[1.28Mcps TDD - FPACH]:**

If the *FPACH Parameters* IE is included, the Node B shall reconfigure the indicated FPACH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FPACH Power* IE, the Node B shall reconfigure the power that the FPACH shall use.

**General:**

After a successful procedure, the channels will have adopted the new configuration in the Node B. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The Node B shall store the value of *Configuration Generation ID* IE and the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE message.

#### 8.2.2.3 Unsuccessful Operation

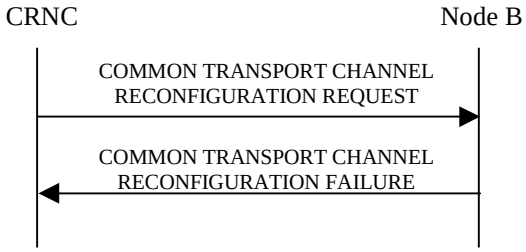



**Figure 4: Common Transport Channel Reconfiguration procedure, Unsuccessful Operation**

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.

Typical cause values are as follows:

**Radio Network Layer Cause:**

- Cell not available
- Power level not supported
- Node B Resources unavailable

**Transport Layer Cause:**

- Transport Resources Unavailable

**Miscellaneous Cause:**

- O&M Intervention
- Control processing overload
- HW failure

#### 8.2.2.4 Abnormal Conditions

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### 8.2.3 Common Transport Channel Deletion

#### 8.2.3.1 General

This procedure is used for deleting common physical channels and common transport channels.

### 8.2.3.2 Successful Operation

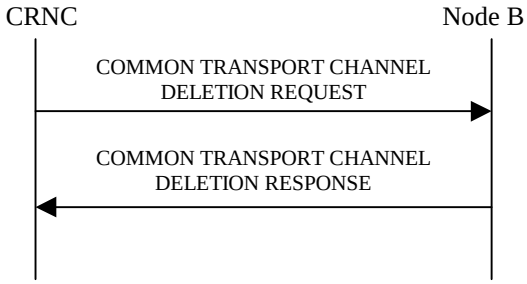



**Figure 5: Common Transport Channel Deletion procedure, Successful Operation**

The procedure is initiated with a COMMON TRANSPORT CHANNEL DELETION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

**Secondary CCPCH:**

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a Secondary CCPCH, the Node B shall delete the indicated channel and the FACHs and PCH supported by that Secondary CCPCH. If there is a PCH that is deleted, the PICH associated with that PCH shall also be deleted. If an S-CCPCH is deleted, the MICH associated with that S-CCPCH shall also be deleted.

**PRACH:**

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a PRACH, the Node B shall delete the indicated channel and the RACH supported by the PRACH. [FDD - The AICH associated with the RACH shall also be deleted.]

**General:**

[TDD - If the requested common physical channel is a part of a CCTrCH, all common transport channels and all common physical channels associated with this CCTrCH shall be deleted.]

After a successful procedure, the channels are deleted in the Node B. The channels in the COMMON TRANSPORT CHANNEL DELETION REQUEST message shall be set to state Not Existing ref. [6]. The Node B shall store the received value of the *Configuration Generation ID* IE and respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

### 8.2.3.3 Unsuccessful Operation

-

### 8.2.3.4 Abnormal Conditions

If the C-ID in the COMMON TRANSPORT CHANNEL DELETION REQUEST message is not existing in the Node B or the Common Physical Channel ID does not exist in the Cell, the Node B shall respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

## 8.2.4 Block Resource

### 8.2.4.1 General

The Node B initiates this procedure to request the CRNC to prohibit the usage of the specified logical resources.

The logical resource that can be blocked is a cell.

### 8.2.4.2 Successful Operation

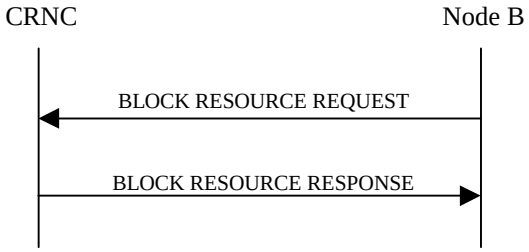



**Figure 6: Block Resource procedure, Successful Operation**

The procedure is initiated with a BLOCK RESOURCE REQUEST message sent from the Node B to the CRNC using the Node B Control Port.

Upon reception of the BLOCK RESOURCE REQUEST message, the CRNC shall prohibit the use of the indicated logical resources according to the *Blocking Priority Indicator* IE.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "High Priority", the CRNC shall prohibit the use of the logical resources immediately.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "Normal Priority", the CRNC shall prohibit the use of the logical resources if the resources are idle or immediately upon expiry of the shutdown timer specified by the *Shutdown Timer* IE in the BLOCK RESOURCE REQUEST message. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "Low Priority", the CRNC shall prohibit the use of the logical resources when the resources become idle. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the resources are successfully blocked, the CRNC shall respond with a BLOCK RESOURCE RESPONSE message. Upon reception of the BLOCK RESOURCE RESPONSE message, the Node B may disable [3.84Mcps TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, if present the Secondary CPICH(s)], [1.28Mcps TDD - DwPCH] and the Primary CCPCH. The other logical resources in the cell shall be considered as blocked.

Reconfiguration of logical resources and change of System Information can be done, even when the logical resources are blocked.

**Interactions with the Unblock Resource procedure:**

If the UNBLOCK RESOURCE INDICATION message is received by the CRNC while a Block Resource procedure on the same logical resources is in progress, the CRNC shall cancel the Block Resource procedure and proceed with the Unblock Resource procedure.

If the BLOCK RESOURCE RESPONSE message or the BLOCK RESOURCE FAILURE message is received by the Node B after the Node B has initiated an Unblock Resource procedure on the same logical resources as the ongoing Block Resource procedure, the Node B shall ignore the response to the Block Resource procedure.

#### 8.2.4.3 Unsuccessful Operation

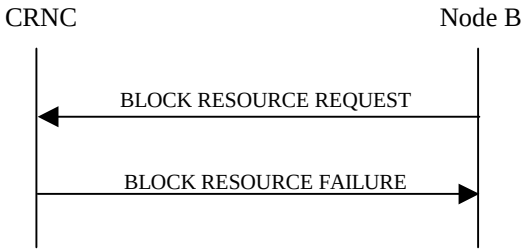



**Figure 7: Block Resource procedure, Unsuccessful Operation**

The CRNC may reject the request to block the logical resources, in which case the logical resources will remain unaffected and the CRNC shall respond to the Node B with the BLOCK RESOURCE FAILURE message. Upon reception of the BLOCK RESOURCE FAILURE message, the Node B shall leave the logical resources in the state that they were in prior to the start of the Block Resource procedure.

Typical cause values are as follows:

**Miscellaneous Cause:**

- O&M Intervention
- Control processing overload
- HW failure

**Radio Network Layer Cause:**

- Priority transport channel established

#### 8.2.4.4 Abnormal Conditions

-

### 8.2.5 Unblock Resource

#### 8.2.5.1 General

The Node B initiates this procedure to indicate to the CRNC that logical resources are now unblocked.

The logical resource that can be unblocked is a cell.

#### 8.2.5.2 Successful Operation




**Figure 8: Unblock Resource procedure, Successful Operation**

The procedure is initiated with an UNBLOCK RESOURCE INDICATION message sent from the Node B to the CRNC using the Node B Control Port. The Node B shall enable [3.84Mcps TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, the Secondary CPICH(s) (if present)], [1.28Mcps TDD - DwPCH] and the Primary CCPCH that had been disabled due to the preceding Block Resource procedure before sending the UNBLOCK

RESOURCE INDICATION message. Upon reception of the UNBLOCK RESOURCE INDICATION message, the CRNC may permit the use of the logical resources.

All physical channels and transport channels associated to the cell that is unblocked are also unblocked.

#### 8.2.5.3 Abnormal Conditions

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### 8.2.6 Audit Required

#### 8.2.6.1 General

The Node B initiates this procedure to request the CRNC to perform an audit of the logical resources at the Node B. This procedure is used to indicate a possible misalignment of state or configuration information.

#### 8.2.6.2 Successful Operation

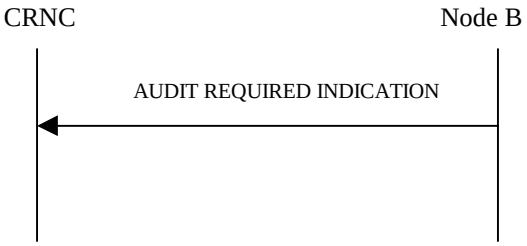



**Figure 9: Audit Required procedure, Successful Operation**

The procedure is initiated with an AUDIT REQUIRED INDICATION message sent from the Node B to the CRNC using the Node B Control Port.

If the Node B cannot ensure alignment of the state or configuration information, it should initiate the Audit Required procedure.

Upon receipt of the AUDIT REQUIRED INDICATION message, the CRNC should initiate the Audit procedure.

#### 8.2.6.3 Abnormal Conditions

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### 8.2.7 Audit

#### 8.2.7.1 General

This procedure is executed by the CRNC to perform an audit of the configuration and status of the logical resources in the Node B. A complete audit of a Node B is performed by one or more Audit procedures, together performing an audit sequence. The audit may cause the CRNC to re-synchronise the Node B to the status of logical resources known by the CRNC, that the Node B can support.

### 8.2.7.2 Successful Operation

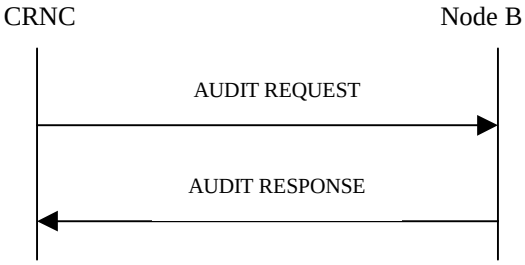



**Figure 10: Audit procedure, Successful Operation**

The procedure is initiated with an AUDIT REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the *Start Of Audit Sequence Indicator* IE in the AUDIT REQUEST message is set to "start of audit sequence" a new audit sequence is started, any ongoing audit sequence shall be aborted and the Node B shall provide (part of the) audit information. If the *Start Of Audit Sequence Indicator* IE is set to "not start of audit sequence", the Node B shall provide (part of) the remaining audit information not already provided during this audit sequence.

If the information provided in the AUDIT RESPONSE message completes the audit sequence, the Node B shall set the *End Of Audit Sequence Indicator* IE in the AUDIT RESPONSE message to "End of Audit Sequence". If not all audit information has been provided yet as part of the ongoing audit sequence, the Node B shall set the *End Of Audit Sequence Indicator* IE in the AUDIT RESPONSE message to "Not End of Audit Sequence".

**Information Provided In One Audit Sequence:**

The Node B shall include one *Local Cell Information* IE for each local cell present in the Node B. The Node B shall include the *Maximum DL Power Capability* IE, the *Minimum Spreading Factor* IE and the *Minimum DL Power Capability* IE when any of those values are known by the Node B.The Node B shall include the *HSDPA Capability* IE set to "HSDPA Capable" for every HSDPA-capable Local Cell. [FDD - The Node B shall include the *E-DCH Capability* IE set to "E-DCH Capable" for every E-DCH-capable Local Cell.] [FDD – The Node B shall include the *F-DPCH Capability* IE set to "F-DPCH Capable" for every F-DPCH-capable Local Cell.]

[TDD - The Node B shall include the *Reference Clock Availability* IE to indicate the availability of a Reference clock connected to the Local Cell.]

If the Node B internal resources are pooled for a group of cells, the Node B shall include one *Local Cell Group Information* IE containing the Node B internal resource capacity and the consumption laws per group of cells [FDD - , including also the E-DCH capacity consumption law, if E-DCH is supported]. If the *UL Capacity Credit* IE is not present in the *Local Cell Group Information* IE, then the internal resource capabilities of the Node B for the Local Cell Group are modelled as shared resources between Uplink and Downlink.

If the Node B internal power resources are pooled for a group of Local Cells, the Node B shall include one *Power Local Cell Group Information* IE containing the Maximum DL Power Capability for each Power Local Cell Group for which this value is known by the Node B. In this case, the Node B shall also include the *Maximum DL Power Capability* IE in the *Local Cell Information* IE for all the Local Cells belonging to a Power Local Cell Group reported in the *Power Local Cell Group Information* IE. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

The Node B shall include, for each local cell present in the Node B, the Node B internal resource capability and consumption laws within the *Local Cell Information* IE [FDD - , including also the E-DCH capacity consumption law, if E-DCH is supported]. If the *UL Capacity Credit* IE is not present in the *Local Cell Information* IE, then the internal resource capabilities of the local cell are modelled as shared resources between Uplink and Downlink. If the Local Cell utilises Node B internal resource capabilities that are pooled for several Local Cell(s), the *Local Cell Group ID* IE shall contain the identity of the used Local Cell Group. If the Local Cell utilises Node B internal power resources that are pooled for several Local Cells, the *Power Local Cell Group ID* IE shall contain the identity of the concerned Power Local Cell Group.

The Node B shall include one *Cell Information* IE for each cell in the Node B and information about all common transport channels and all common physical channels for each cell. If a *Configuration Generation ID* IE for a cell can not be trusted, the Node B shall set this *Configuration Generation ID* IE = "0". The Node B shall include the *HS-DSCH Resources Information* IE for every Cell which has been configured with HS-DSCH resources. [FDD - The Node B shall include the *E-DCH Resources Information* IE for every Cell which has been configured with E-DCH resources.]

The Node B shall also include one *Communication Control Port Information* IE for each Communication Control Port in the Node B.

#### 8.2.7.3 Unsuccessful Operation

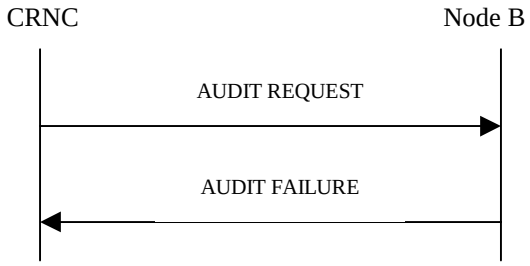



**Figure 10A: Audit procedure, Unsuccessful Operation**

If the Node B cannot perform an audit of the configuration and status of the logical resources, it shall send a AUDIT FAILURE message with the *Cause* IE set to an appropriate value.

#### 8.2.7.4 Abnormal Conditions

If the Node B receives the AUDIT REQUEST message with the *Start Of Audit Sequence Indicator* IE set to "not start of audit sequence" and there is no ongoing audit sequence, the Node B shall send the AUDIT FAILURE message with the appropriate cause value.

### 8.2.8 Common Measurement Initiation

#### 8.2.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on common resources in a Node B.

#### 8.2.8.2 Successful Operation

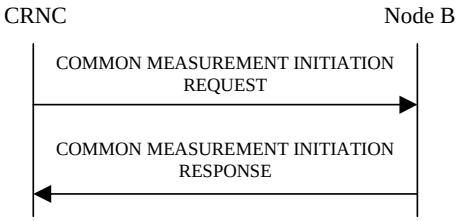



**Figure 11: Common Measurement Initiation procedure, Successful Operation**

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

[TDD - If the [3.84Mcps TDD - *Time Slot* IE] [1.28Mcps TDD - *Time Slot LCR* IE] is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the requested time slot individually.]

If the *Common Measurement Type* IE is not set to "SFN-SFN Observed Time Difference" and the *SFN Reporting Indicator* IE is set to "FN Reporting Required", the *SFN* IE shall be included in the COMMON MEASUREMENT REPORT message or in the COMMON MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", the *SFN Reporting Indicator* IE shall be ignored.

**Common measurement type:**

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the Node B shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by *C-ID* IE and the neighbouring cells identified by the *UTRAN Cell Identifier(UC-Id)* IE in the *Neighbouring Cell Measurement Information* IE.

If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion", "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion", "HS-DSCH Required Power for Cell Portion" or "HS-DSCH Provided Bit Rate for Cell Portion", the Node B shall initiate the corresponding measurements for all the cell portions which are configured under the cell indicated by *C-ID* IE in the COMMON MEASUREMENT INITIATION REQUEST message.

**Report characteristics:**
The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *SFN* IE is not provided, the Node B shall return the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate a Common Measurement Reporting procedure for this measurement, with the requested report frequency. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", all the available measurement results shall be reported in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE all the remaining neighbouring cells with no measurement result available in the Common Measurement Reporting procedure. If the *SFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.

If the *Report Characteristics* IE is set to "Event B", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting. If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.
If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall initiate the Common Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Common Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion"or "HS-DSCH Required Power for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the Node B shall also initiate the Common Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Common Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the Node B shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25]. Then, the Node B shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

1. If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":

   - If the $T_{UTRAN-GPS}$ *Change Limit* IE is included in the $T_{UTRAN-GPS}$ *Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of $T_{UTRAN-GPS}$ value ($F_n$). The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of $F_n$ rises above the threshold indicated by the $T_{UTRAN-GPS}$ *Change Limit* IE. The change of $T_{UTRAN-GPS}$ value ($F_n$) is calculated according to the following:

     $F_n=0$ *for* $n=0$

$F_n = (M_n – M_{n-1}) \bmod 37158912000000 – ((SFN_n – SFN_{n-1}) \bmod 4096) *10*3.84*10\^3*16 + F_{n-1}$

*for n>0*

$F_n$ is the change of the $T_{UTRAN-GPS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

$M_n$ is the latest measurement result received after point C in the measurement model [25], measured at $SFN_n$.

$M_{n-1}$ is the previous measurement result received after point C in the measurement model [25], measured at $SFN_{n-1}$.

$M_1$ is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

$M_0$ is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

- If the *Predicted $T_{UTRAN-GPS}$ Deviation Limit* IE is included in the *$T_{UTRAN-GPS}$ Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the $P_n$ and $F_n$ The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when $F_n$ rises above the threshold indicated by the *Predicted $T_{UTRAN-GPS}$ Deviation Limit* IE. The $P_n$ and $F_n$ are calculated according to the following:

  $P_n=b$ *for n=0*

  $P_n = ((a/16) * ((SFN_n – SFN_{n-1}) \bmod 4096)/100 +((SFN_n – SFN_{n-1}) \bmod 4096)*10*3.84*10\^3*16 + P_{n-1}) \bmod 37158912000000$ *for n>0*

  $F_n = \min((M_n - P_n) \bmod 37158912000000, (P_n - M_n) \bmod 37158912000000)$ *for n>0*

  $P_n$ is the predicted $T_{UTRAN-GPS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

  *a* is the last reported $T_{UTRAN-GPS}$ Drift Rate value.

  *b* is the last reported $T_{UTRAN-GPS}$ value.

  $F_n$ is the deviation of the last measurement result from the predicted $T_{UTRAN-GPS}$ value ($P_n$ ) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

  $M_n$ is the latest measurement result received after point C in the measurement model [25], measured at $SFN_n$.

  $M_1$ is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

  The $T_{UTRAN-GPS}$ Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [26].

2. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference":

   - If the *SFN-SFN Change Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of SFN-SFN value ($F_n$). The Node B shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when $F_n$ rises above the threshold indicated by the *SFN-SFN Change Limit* IE. The change of the SFN-SFN value is calculated according to the following:

     $F_n=0$ *for n=0*

     [FDD - $F_n = (M_n – a) \bmod 614400$ *for n>0*]

     [TDD - $F_n = (M_n – a) \bmod 40960$ *for n>0*]

     $F_n$ is the change of the SFN-SFN value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

*a* is the last reported SFN-SFN.

$M_n$ is the latest measurement result received after point C in the measurement model [25], measured at $SFN_n$.

$M_1$ is the first measurement result received after point C in the measurement model [25] after the first Common Measurement Reporting at initiation or after the last event was triggered.

- If the *Predicted SFN-SFN Deviation Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the $P_n$ and $F_n$ The Node B shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the $F_n$ rises above the threshold indicated by the *Predicted SFN-SFN Deviation Limit* IE. The $P_n$ and $F_n$ are calculated according to the following:

  $P_n=b$ *for* $n=0$

  [FDD - $P_n = ((a/16) * ((SFN_n – SFN_{n-1}) \bmod 4096)/100 + P_{n-1}) \bmod 614400$ *for* $n>0$]

  [FDD - $F_n = min((M_n - P_n) \bmod 614400, (P_n - M_n) \bmod 614400)$ *for* $n>0$]

  [TDD - $P_n = ((a/16) * (15*(SFN_n – SFN_{n-1}) \bmod 4096 + (TS_n – TS_{n-1}))/1500 + P_{n-1}) \bmod 40960$ *for* $n>0$]

  [TDD - $F_n = min((M_n - P_n) \bmod 40960, (P_n - M_n) \bmod 40960)$ *for* $n>0$]

  $P_n$ is the predicted *SFN-SFN* value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

  *a* is the last reported SFN-SFN Drift Rate value.

  *b* is the last reported SFN-SFN value.

  *abs* denotes the absolute value.

  $F_n$ is the deviation of the last measurement result from the predicted *SFN-SFN* value ($P_n$) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

  $M_n$ is the latest measurement result received after point C in the measurement model [25], measured at [TDD - the Time Slot $TS_n$ of] the Frame $SFN_n$.

  $M_1$ is the first measurement result received after point C in the measurement model [25] after the first Common Measurement Reporting at initiation or after the last event was triggered.

  The SFN-SFN Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [26].

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Common Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

**Higher layer filtering:**
The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1 - a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

$F_n$ is the updated filtered measurement result

$F_{n-1}$ is the old filtered measurement result

$M_n$ is the latest received measurement result from physical layer measurements, the unit used for $M_n$ is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn)

$a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering)

In order to initialise the averaging filter, $F_0$ is set to $M_1$ when the first measurement result from the physical layer measurement is received.

**Common measurement accuracy:**

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B shall use the *UTRAN GPS Timing Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:

- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class A", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes A, B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class B", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class C", then the Node B shall perform the measurements with the accuracy according to class C.

**Measurement Recovery Behavior:**

If the *Measurement Recovery Behavior* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the COMMON MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.2.9.2.

**Response message:**
If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Measurement ID that was used in the measurement request. Only in the case where the *Report Characteristics* IE is set to "On Demand" or "On Modification", the COMMON MEASUREMENT INITIATION RESPONSE message shall include the measurement result and also the *Common Measurement Achieved Accuracy* IE if the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning".

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", all the available measurement results shall be reported in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE all the remaining neighbouring cells with no measurement result available in the COMMON MEASUREMENT INITIATION RESPONSE message. For all available measurement results, the Node B shall include in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE, if available.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the Node B shall include in the $T_{UTRAN-GPS}$ *Measurement Value Information* IE the $T_{UTRAN-GPS}$ *Quality* IE and the $T_{UTRAN-GPS}$ *Drift Rate Quality* IE, if available.

If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion", "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion", "HS-DSCH Required Power for Cell Portion" or "HS-DSCH Provided Bit Rate for Cell Portion" and the *Report Characteristics* IE is set to "On Demand", all the available measurement results for each cell portion shall be included in the COMMON MEASUREMENT INITIATION RESPONSE message.

### 8.2.8.3 Unsuccessful Operation

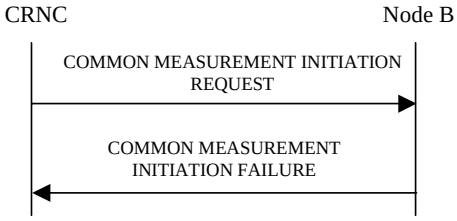



**Figure 12: Common Measurement Initiation procedure, Unsuccessful Operation**

If the requested measurement cannot be initiated, the Node B shall send a COMMON MEASUREMENT INITIATION FAILURE message over the Node B Control Port. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause:**

- Measurement not supported for the object.
- Measurement Temporarily not Available

### 8.2.8.4 Abnormal Conditions

The allowed combinations of the Common Measurement Type received in the *Common Measurement Type* IE and the Common Measurement Object Type received in the COMMON MEASUREMENT INITIATION REQUEST message are shown in the table below. For not allowed combinations, the Node B shall regard the Common Measurement Initiation procedure as failed.

**Table 3a: Allowed Common Measurement Type and Common Measurement Object Type combinations**

| Common Measurement Type | Common Measurement Object Type | | |
|---|---|---|---|
| | Cell | RACH | Power Local Cell Group |
| Received Total Wide Band Power | X | | |
| Transmitted Carrier Power | X | | |
| Acknowledged PRACH Preambles | | X | |
| UL Timeslot ISCP | X | | |
| UTRAN GPS Timing of Cell Frames for UE Positioning | X | | |
| SFN-SFN Observed Time Difference | X | | |
| [TDD - Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission]<br>[FDD - Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission] | X | | |
| HS-DSCH Required Power | X | | |
| HS-DSCH Provided Bit Rate | X | | |
| Received Total Wide Band Power for Cell Portion | X | | |
| Transmitted Carrier Power for Cell Portion | X | | |
| Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion | X | | |
| UpPTS interference | 1.28 Mcps TDD only | | |
| DL Transmission Branch Load | FDD only | | FDD only |
| HS-DSCH Required Power for Cell Portion | X | | |
| HS-DSCH Provided Bit Rate for Cell Portion | X | | |
| E-DCH Provided Bit Rate | FDD only | | |
| E-DCH Non-serving Relative Grant Down Commands | FDD only | | |

[TDD - If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD - *Time Slot* IE] [1.28Mcps TDD - *Time Slot LCR* IE] is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.]

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN-GPS}$ *Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", but the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON

MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is not set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Common Measurement Accuracy* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Common Measurement Initiation procedure as failed.

**Table 4: Allowed Common Measurement Type and Report Characteristics Type combinations**

| Common Measurement Type | Report Characteristics Type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| Received Total Wide Band Power | X | X | X | X | X | X | X | X | |
| Transmitted Carrier Power | X | X | X | X | X | X | X | X | |
| Acknowledged PRACH Preambles | X | X | X | X | X | X | X | X | |
| UL Timeslot ISCP | X | X | X | X | X | X | X | X | |
| UTRAN GPS Timing of Cell Frames for UE Positioning | X | X | | | | | | | X |
| SFN-SFN Observed Time Difference | X | X | | | | | | | X |
| [TDD – Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission] [FDD - Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission] | X | X | X | X | X | X | X | X | |
| HS-DSCH Required Power | X | X | X | X | | | X | X | |
| HS-DSCH Provided Bit Rate | X | X | | | | | | | |
| Received Total Wide Band Power for Cell Portion | X | X | X | X | X | X | X | X | |
| Transmitted Carrier Power for Cell Portion | X | X | X | X | X | X | X | X | |
| Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion | X | X | X | X | X | X | X | X | |
| UpPTS interference | X | X | X | X | X | X | X | X | |
| DL Transmission Branch Load | X | X | X | X | | | X | X | |
| HS-DSCH Required Power for Cell Portion | X | X | X | X | | | X | X | |
| HS-DSCH Provided Bit Rate for Cell Portion | X | X | | | | | | | |
| E-DCH Provided Bit Rate | X | X | | | | | | | |
| E-DCH Non-serving Relative Grant Down Commands | X | X | X | X | | | X | X | |

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the Node B shall regard the Common Measurement Initiation procedure as failed.

## 8.2.9 Common Measurement Reporting

### 8.2.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Common Measurement Initiation procedure.

### 8.2.9.2 Successful Operation




**Figure 13: Common Measurement Reporting procedure, Successful Operation**

If the requested measurement reporting criteria are met, the Node B shall initiate the Common Measurement Reporting procedure. The COMMON MEASUREMENT REPORT message shall use the Node B Control Port.

The *Measurement ID* IE shall be set to the Measurement ID provided by the CRNC when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the *Common Measurement Value Information* IE shall indicate Measurement not Available. If the Node B was configured to perform the Measurement Recovery Behavior, the Node B shall indicate Measurement Available to the CRNC when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [22] and [23]) and include the *Measurement Recovery Report Indicator* IE in the COMMON MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

For measurements included in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE, the Node B shall include the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE if available.

If the Common Measurement Type provided by RNC when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B shall include in the $T_{UTRAN\text{-}GPS}$ *Measurement Value Information* IE the $T_{UTRAN\text{-}GPS}$ *Quality* IE and the $T_{UTRAN\text{-}GPS}$ *Drift Rate Quality* IE, if available.

For Received Total Wide Band Power for Cell Portion, Transmitted Carrier Power for Cell Portion, Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission for Cell Portion measurements, HS-DSCH Required Power for Cell Portion, HS-DSCH Provided Bit Rate for Cell Portion, all the available measurement results for each cell portion shall be included in the COMMON MEASUREMENT REPORT message.

### 8.2.9.3 Abnormal Conditions

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## 8.2.10 Common Measurement Termination

### 8.2.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

### 8.2.10.2 Successful Operation




**Figure 14: Common Measurement Termination procedure, Successful Operation**

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message, sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate reporting of common measurements corresponding to the received *Measurement ID* IE.

### 8.2.10.3 Abnormal Conditions

-

## 8.2.11 Common Measurement Failure

### 8.2.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

### 8.2.11.2 Successful Operation




**Figure 15: Common Measurement Failure procedure, Successful Operation**

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B Control Port, to inform the CRNC that a previously requested measurement can no longer be reported. The Node B has locally terminated the indicated measurement.

### 8.2.11.3 Abnormal Conditions

-

## 8.2.12 Cell Setup

### 8.2.12.1 General

This procedure is used to set up a cell in the Node B. The CRNC takes the cell, identified via the *C-ID* IE, into service and uses the resources in the Node B identified via the *Local Cell ID* IE.

### 8.2.12.2 Successful Operation

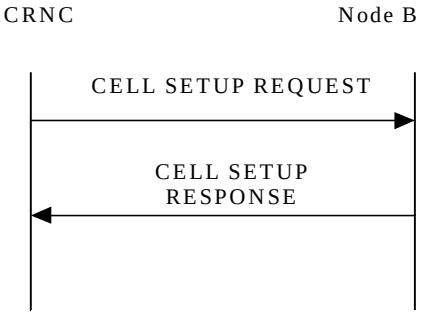



**Figure 16: Cell Setup procedure, Successful Operation**

The procedure is initiated with a CELL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon Reception, the Node B shall reserve the necessary resources and configure the new cell according to the parameters given in the message.

[FDD - If the CELL SETUP REQUEST message includes one or more *Secondary CPICH Information* IE, the Node B shall configure and activate the Secondary CPICH(s) in the cell according to received configuration data.]

The *Maximum Transmission Power* IE value shall be stored in the Node B and, at any instance of time, the total maximum output power in the cell shall not be above this value.

[FDD - If the *Closed Loop Timing Adjustment Mode* IE is included in the CELL SETUP REQUEST message, the value shall be stored in the Node B and applied when closed loop Feed-Back mode diversity is used on DPCH.]

[TDD - If the *Reference SFN Offset* IE is included in the CELL SETUP REQUEST message, the Node B where a reference clock is connected shall consider the SFN derived from the synchronisation port and the reference offset for reference time setting. All other Node Bs shall ignore the *Reference SFN Offset* IE if included.]

[FDD - If the *IPDL Parameter Information* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL FDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [10].]

[3.84Mcps TDD - If the *IPDL Parameter Information* IE containing *IPDL TDD Parameters* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL in 3.84Mcps TDD mode shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [21].]

[1.28Mcps TDD - If the *IPDL Parameter Information LCR* IE containing *IPDL TDD Parameters LCR* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL in 1.28Mcps TDD mode shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters LCR* IE, the IPDL shall be operated in burst mode according to ref [21].]

When the cell is successfully configured, the Node B shall store the *Configuration Generation ID* IE value and send a CELL SETUP RESPONSE message as a response.

[FDD - When the cell is successfully configured the CPICH(s), Primary SCH, Secondary SCH, Primary CCPCH and BCH exist.][3.84Mcps TDD - When the cell is successfully configured the SCH, Primary CCPCH and BCH exist and the switching-points for the 3.84Mcps TDD frame structure are defined.] [1.28Mcps TDD - When the cell is

successfully configured, the DwPCH, Primary CCPCH and BCH exist and the switching-points for the 1.28Mcps TDD frame structure are defined.] The cell and the channels shall be set to the state Enabled [6].

[TDD - The Node B shall ignore the *DPCH/PUSCH/PRACH Constant Value* IEs.]

[FDD - If the CELL SETUP REQUEST message includes *Cell Portion Information* IE, the Node B shall associate *Associated Secondary CPICH* IE to the cell portion indicated by *Cell Portion ID* IE and the *Maximum Transmission Power for Cell Portion* IE value shall be stored in the Node B and at any instance of time the total maximum output power in the cell portion indicated by *Cell Portion ID* IE shall not be above this value.]

### 8.2.12.3 Unsuccessful Operation

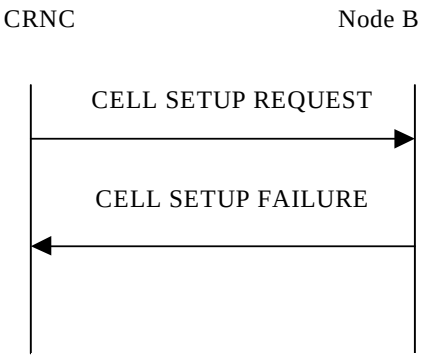



**Figure 17: Cell Setup procedure: Unsuccessful Operation**

If the Node B cannot set up the cell according to the information given in CELL SETUP REQUEST message the CELL SETUP FAILURE message shall be sent to the CRNC.

In this case, the cell is Not Existing in the Node B. The Configuration Generation ID shall not be changed in the Node B.

The *Cause* IE shall be set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause:**

- S-CPICH not supported
- Requested Tx Diversity Mode not supported
- Power level not supported
- Node B Resources unavailable
- IPDL not supported

**Miscellaneous Cause:**

- O&M Intervention
- Control processing overload
- HW failure

### 8.2.12.4 Abnormal Conditions

If the state of the cell already is Enabled or Disabled [6] when the CELL SETUP REQUEST message is received in the Node B, it shall reject the configuration of the cell and all channels in the CELL SETUP REQUEST message by sending a CELL SETUP FAILURE message with the *Cause* IE set to "Message not compatible with receiver state".

If the Local Cell on which the cell is mapped does not belong to a Power Local Cell Group and the requested maximum transmission power indicated by the *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Local Cell, the Node B shall consider the procedure as having failed and send a CELL SETUP FAILURE message to the CRNC.

If the Local Cell on which the cell is mapped belongs to a Power Local Cell Group and the requested maximum transmission power indicated by *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Power Local Cell Group, the Node B shall consider the procedure as having failed and send a CELL SETUP FAILURE message to the CRNC.

## 8.2.13 Cell Reconfiguration

### 8.2.13.1 General

This procedure is used to reconfigure a cell in the Node B.

### 8.2.13.2 Successful Operation

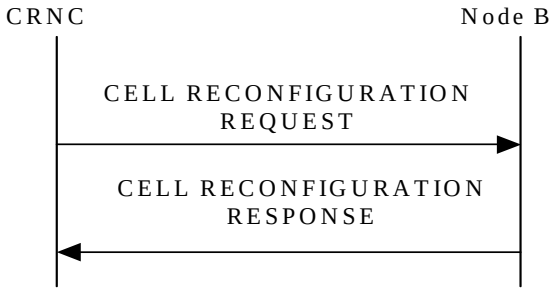



**Figure 18: Cell Reconfiguration procedure, Successful Operation**

The procedure is initiated with a CELL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon Reception, the Node B shall reconfigure the cell according to the parameters given in the message.

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary SCH Information* IE, the Node B shall reconfigure the Primary SCH power in the cell according to *Primary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Secondary SCH Information* IE, the Node B shall reconfigure the Secondary SCH power in the cell according to the *Secondary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CPICH Information* IE, the Node B shall reconfigure the Primary CPICH power in the cell according to the *Primary CPICH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CPICH power according to the new value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes one or more *Secondary CPICH Information* IE, the Node B shall reconfigure the power for each Secondary CPICH in the cell according to their *Secondary CPICH Power* IE value.]

[3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *SCH Information* IE, the Node B shall reconfigure the SCH power in the cell according to the *SCH Power* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *Timing Advance Applied* IE, the Node B shall apply the necessary functions for Timing Advance in that cell including reporting of the Rx Timing Deviation measurement, according to the *Timing Advance Applied* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CCPCH Information* IE, the Node B shall reconfigure the BCH power in the cell according to the *BCH Power* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *PCCPCH Information* IE, the Node B shall reconfigure the P-CCPCH power in the cell according to the *PCCPCH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CPPCH power according to the new value.]

If the CELL RECONFIGURATION REQUEST message includes the *Maximum Transmission Power* IE, the value shall be stored in the Node B and at any instance of time the total maximum output power in the cell shall not be above this value.

[3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *Time Slot Configuration* IE, the Node B shall reconfigure switching-point structure in the cell according to the *Time Slot* IE value.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *Time Slot Configuration LCR* IE, the Node B shall reconfigure switching-point structure in the cell according to the *Time Slot LCR* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes any of the *DPCH/PUSCH/PRACH Constant Value* IEs, the Node B shall ignore them]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *DwPCH Information* IE, the Node B shall reconfigure the DwPCH power in the Cell according to the *DwPCH Power* IE]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Active" the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL FDD Parameters* IE. If the *Burst Mode Parameters* IE is included in the *IPDL FDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [10].]

[3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Active", the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL TDD Parameters* IE. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [21].]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information LCR* IE with the *IPDL Indicator* IE set to the value "Active", the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL TDD Parameters LCR* IE. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters LCR* IE, the IPDL shall be operated in burst mode according to ref [21].]

If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with *the IPDL Indicator* IE set to the value "Inactive", the Node B shall deactivate the ongoing IPDL.

When the cell is successfully reconfigured, the Node B shall store the new *Configuration Generation ID* IE value and send a CELL RECONFIGURATION RESPONSE message as a response.

If the CELL RECONFIGURATION REQUEST message includes the *Synchronisation Configuration* IE, the Node B shall reconfigure the indicated parameters in the cell according to the value of the *N_INSYNC_IND*, *N_OUTSYNC_IND* and *T_RLFAILURE* IEs. When the parameters in the *Synchronisation Configuration* IE affect the thresholds applied to a RL set, the Node B shall immediately apply the new thresholds. When applying the new thresholds, the Node B shall not change the state or value of any of the timers and counters for which the new thresholds apply.

[FDD - If the CELL RECONFIGURATION REQUEST message includes *Cell Portion Information* IE, the *Maximum Transmission Power for Cell Portion* IE value shall be stored in the Node B and at any instance of time the total maximum output power in the cell portion indicated by *Cell Portion ID* IE shall not be above this value.]

### 8.2.13.3 Unsuccessful Operation

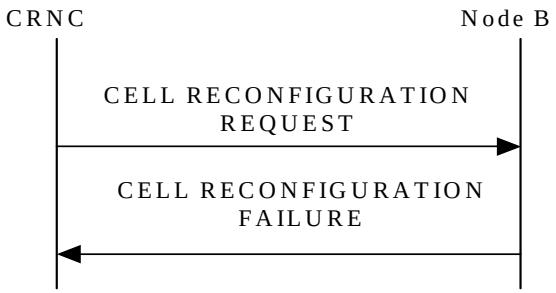



**Figure 19: Cell Reconfiguration procedure: Unsuccessful Operation**

If the Node B cannot reconfigure the cell according to the information given in CELL RECONFIGURATION REQUEST message, the CELL RECONFIGURATION FAILURE message shall be sent to the CRNC.

In this case, the Node B shall keep the old configuration of the cell and the Configuration Generation ID shall not be changed in the Node B.

The *Cause* IE shall be set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause:**

- Power level not supported
- Node B Resources unavailable
- IPDL not supported

**Miscellaneous Cause:**

- O&M Intervention
- Control processing overload
- HW failure

### 8.2.13.4 Abnormal Conditions

If the *IPDL Indicator* IE set to the value "Active" is included in the CELL RECONFIGURATION REQUEST message and there is active IPDL ongoing in the Node B, the Node B shall respond with the CELL RECONFIGURATION FAILURE message with the cause value "IPDL already activated".

If the *IPDL Indicator* IE set to the value "Active" is included in the CELL RECONFIGURATION REQUEST message and there is no IPDL stored in the Node B defining the IPDL, the Node B shall respond with the CELL RECONFIGURATION FAILURE message with the cause value "IPDL parameters not available".

If the Local Cell on which the cell is mapped does not belong to of a Power Local Cell Group and the requested maximum transmission power indicated by the *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Local Cell, the Node B shall consider the procedure as having failed and send a CELL RECONFIGURATION FAILURE message to the CRNC.

If the Local Cell on which the cell is mapped belongs to a Power Local Cell Group and the requested maximum transmission power indicated by *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the

Power Local Cell Group, the Node B shall consider the procedure as having failed and send a CELL RECONFIGURATION FAILURE message to the CRNC.

## 8.2.14 Cell Deletion

### 8.2.14.1 General

This procedure is used to delete a cell in the Node B.

### 8.2.14.2 Successful Operation

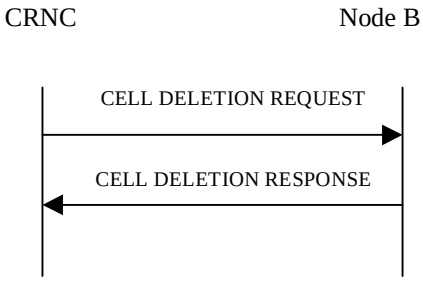



**Figure 20: Cell Deletion procedure, Successful Operation**

The procedure is initiated with a CELL DELETION REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon reception, the Node B shall remove the cell and any remaining common and dedicated channels within the cell. The states for the cell and the deleted common channels shall be set to Not Existing [6]. The Node B shall remove all Radio Links from the Cell and all Node B Communication Contexts that as a result do not have a Radio Link. The Node B shall also initiate release of the user plane transport bearers for the removed common and dedicated channels.

When the cell is deleted, the Node B shall send a CELL DELETION RESPONSE message as a response.

### 8.2.14.3 Unsuccessful Operation

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### 8.2.14.4 Abnormal Conditions

If the CELL DELETION REQUEST message includes a *C-ID* IE value that is not existing in the Node B, the Node B shall respond with the CELL DELETION RESPONSE message.

## 8.2.15 Resource Status Indication

### 8.2.15.1 General

This procedure is used in the following cases:

1. When a Local Cell becomes Existing at the Node B.
2. When a Local Cell is to be deleted in Node B, i.e. becomes Not Existing.
3. When the capabilities of the Local Cell change at the Node B.
4. When a cell has changed its capability and/or its resource operational state at the Node B.
5. When common physical channels and/or common transport channels have changed their capabilities at the Node B.
6. When a Communication Control Port has changed its resource operational state at the Node B.

7. When a Local Cell Group has changed its resource capability at the Node B.

Each of the above cases shall trigger a Resource Status Indication procedure and the RESOURCE STATUS INDICATION message shall contain the logical resources affected for that case and the cause value when applicable.

### 8.2.15.2 Successful Operation

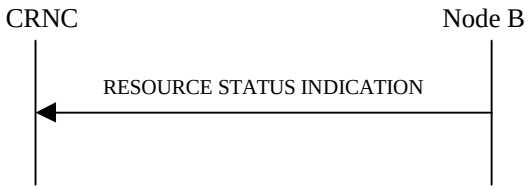



**Figure 21: Resource Status Indication procedure, Successful Operation**

The procedure is initiated with a RESOURCE STATUS INDICATION message sent from the Node B to the CRNC using the Node B Control Port.

**Local Cell Becomes Existing:**

When a Local Cell becomes Existing at the Node B, the Node B shall make it available to the CRNC by sending a RESOURCE STATUS INDICATION message containing a "No Failure" Indication, the *Local Cell ID* IE and the *Add/Delete Indicator* IE set equal to "Add".

When the capacity credits and consumption laws are shared between several Local Cells, the Node B includes the *Local Cell Group ID* IE for the Local Cell. If the *Local Cell Group Information* IE has not already been reported in a previous RESOURCE STATUS INDICATION message, the Node B shall include the capacity credits and the consumption laws in the *Local Cell Group Information* IE [FDD - , including also the E-DCH capacity consumption law, if E-DCH is supported].

If the *Local Cell* IE contains both the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink. If the *Local Cell Group Information* IE contains both the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Local Cell Group are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Local Cell Group are modelled as shared resources between Uplink and Downlink.

If the Node B internal power resources are pooled for a group of Local Cells, the Node B shall include the *Power Local Cell Group ID* IE for the Local Cell. If the *Power Local Cell Group Information* IE has not already been reported in a previous RESOURCE STATUS INDICATION message, the Node B shall include this IE for the concerned Power Local Cell Group in this message. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

If the Local Cell is HSDPA-capable when it becomes Existing, the Node B shall include the *HSDPA Capability* IE set to "HSDPA Capable" for the Local Cell.

[FDD - If the Local Cell is E-DCH-capable when it becomes Existing, the Node B shall include the *E-DCH Capability* IE set to "E-DCH Capable" for the Local Cell.]

[FDD - If the Local Cell is F-DPCH-capable when it becomes Existing, the Node B shall include the *F-DPCH Capability* IE set to "F-DPCH Capable" for the Local Cell.]

**Local Cell Deletion:**

When a Local Cell is to be deleted in the Node B, i.e. becomes Not Existing, the Node B shall withdraw the Local Cell from the CRNC by sending a RESOURCE STATUS INDICATION message containing a "No Failure" Indication, the *Local Cell ID* IE and the *Add/Delete Indicator* IE set to "Delete". The Node B shall not withdraw a previously configured cell at the Node B that the CRNC had configured using the Cell Setup procedure, until the CRNC has deleted that cell at the Node B using the Cell Delete procedure.

**Capability Change of a Local Cell:**

When the capabilities of a Local Cell change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Local Cell ID* IE.

The Node B shall include the *Minimum DL Power Capability* IE when it is known by the Node B.

If the maximum DL power capability of the Local Cell has changed, the new capability shall be indicated in the *Maximum DL Power Capability* IE.

If the DL capability for supporting the minimum spreading factor has changed, the new capability shall be indicated in the *Minimum Spreading Factor* IE.

[TDD - If the availability of the Reference clock connected to a Local Cell has changed, the new availability condition shall be indicated in the *Reference Clock Availability* IE.]

The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

If the internal resource capabilities of the Local Cell are affected, it shall be reported in the following way:

- If the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink, the new capacity shall be reported in the *DL Or Global Capacity Credit* IE.

- If the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction, then the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE shall be present in the RESOURCE STATUS INDICATION.

If the Capacity Consumption Law for Common Channels has changed for the Local Cell, the new law shall be reported by the Node B in the *Common Channels Capacity Consumption Law* IE.

If the Capacity Consumption Law for Dedicated Channels has changed for the Local Cell, the new law shall be reported by the Node B in the *Dedicated Channels Capacity Consumption Law* IE.

[FDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell, the new law shall be reported by the Node B in the *E-DCH Capacity Consumption Law* IE.]

If the HSDPA capability has changed for the Local Cell, the new capability shall be indicated in the *HSDPA Capability* IE.

[FDD - If the E-DCH capability has changed for the Local Cell, the new capability shall be indicated in the *E-DCH Capability* IE.]

[FDD - If the F-DPCH capability has changed for the Local Cell, the new capability shall be indicated in the *F-DPCH Capability* IE.]

**Capability Change of a Cell:**

When the capabilities and/or resource operational state of a cell changes at the Node B, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication, the *Resource Operational State* IE and the *Availability Status* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

**Capability Change of a Common Physical Channel and/or Common Transport Channel:**

The Node B shall not delete any common or dedicated channels due to the cell being "Disabled". For all affected common and dedicated channels, the Node B shall report the impact to the CRNC with the relevant procedures.

When the capabilities and/or resource operational state of common physical channels and/or common transport channels have changed, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication, the *Resource Operational State* IE and the *Availability Status* IE set to appropriate values for the affected channel(s). The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When a power value for a common physical channel and/or a common transport channel becomes beyond the supported power value range due to a change in capability in the Node B, it shall be reported to the CRNC in the RESOURCE STATUS INDICATION message, with the *Resource Operational State* IE set to "Enabled", the *Availability Status* IE

set to "Degraded" and the *Cause* IE set to "Power level not supported". Affected channels shall use the nearest power value that is supported.

**Capability Change of a Communication Control Port:**

When the resource operational state of a Communication Control Port has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Communication Control Port ID* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

**Capability Change of HS-DSCH Resources:**

When the resource operational state of the HS-DSCH resources has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

**Capability Change of a Local Cell Group:**

When the resource capabilities of a Local Cell Group change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Local Cell Group Information* IE reporting the change. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value. If the RESOURCE STATUS INDICATION message contains both the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Node B are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

If the Capacity Consumption Law for Common Channels has changed for the Local Cell Group, the new law shall be reported by the Node B in the *Common Channels Capacity Consumption Law* IE.

If the Capacity Consumption Law for Dedicated Channels has changed for the Local Cell Group, the new law shall be reported by the Node B in the *Dedicated Channels Capacity Consumption Law* IE.

[FDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell Group, the new law shall be reported by the Node B in the *E-DCH Capacity Consumption Law* IE.]

**Capability Change of a Power Local Cell Group:**

When the power capability of a Power Local Cell Group changes at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to "Service Impacting" and the *Power Local Cell Group Information* IE reporting the change. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value. In this case, the Node B shall also include the *Maximum DL Power Capability* IE in the *Local Cell Information* IE for all the Local Cells belonging to the concerned Power Local Cell Group. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

**General:**

When the RESOURCE STATUS INDICATION message is used to report an error, only one cause value for all reported objects can be sent in one message. When the RESOURCE STATUS INDICATION message is used to clear errors, only all errors for one object can be cleared per message. It is not possible to clear one out of several errors for one object.

### 8.2.15.3 Abnormal Conditions

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## 8.2.16 System Information Update

### 8.2.16.1 General

The System Information Update procedure performs the necessary operations in order for the Node B to apply the correct scheduling of and/or to include the appropriate contents to the system information segments broadcast on the BCCH.

### 8.2.16.2 Successful Operation

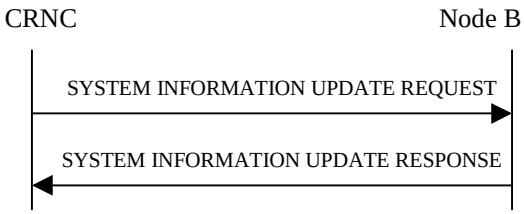



**Figure 22: System Information Update procedure, Successful Operation**

The procedure is initiated with a SYSTEM INFORMATION UPDATE REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

The Node B shall consider the requested updates to the BCCH schedule in the same order as the MIB/SB/SIB information is included in the SYSTEM INFORMATION UPDATE REQUEST message.

If the SYSTEM INFORMATION UPDATE REQUEST message includes the *BCCH Modification Time* IE, the updates to the BCCH schedule (possibly consisting of IB occurrence additions, IB occurrence deletions and IB occurrence contents updates) indicated in the SYSTEM INFORMATION UPDATE REQUEST message shall be applied by the Node B at the first time instance starting from the SFN value set by the *BCCH Modification Time* IE. If no *BCCH Modification Time* IE is included, the updates to the BCCH schedule shall be applied as soon as possible.

**Information Block addition:**
If the SYSTEM INFORMATION UPDATE REQUEST message includes segments of a certain MIB/SB/SIB, the Node B shall assume that all segments for that Information Block are included in the message and ordered with increasing Segment Index (starting from 0). For each included segment, segment type information and *IB SG POS* IE are also given in the SYSTEM INFORMATION UPDATE REQUEST message.

The Node B shall determine the correct cell system frame number(s) (SFN) for transmission of the segments of system information, from the scheduling parameters provided in the SYSTEM INFORMATION UPDATE REQUEST message. The SFN for transmitting the segments shall be determined by the *IB SG REP* IE and *IB SG POS* IE such that:

- SFN mod IB_SG_REP = IB_SG_POS

If the SYSTEM INFORMATION UPDATE REQUEST message contains Master Information Block (MIB) segments in addition to SIB or SB segments, the MIB segments shall first be sent in the physical channel by the Node B. Once these MIB segments have been sent in the physical channel, the updated SB/SIB segments shall then be sent in the physical channel.

Only if the inclusion of each new IB segment in the BCCH schedule leads to a valid segment combination according to [18], the Node B shall accept the system information update.

If the *SIB Originator* IE value is set to "Node B", the Node B shall create the SIB segment of the SIB type given by the *IB Type* IE and autonomously update the SIB segment and apply the scheduling and repetition as given by the *IB SG REP* IE and *IB SG POS* IE.

SIBs originating from the Node B can only be SIBs containing information that the Node B can obtain on its own.

**Information Block deletion:**
If an IB Deletion is indicated in an instance of *MIB/SB/SIB information* IE in the SYSTEM INFORMATION UPDATE REQUEST message, the Node B shall delete the IB indicated by the *IB Type* IE and *IB OC ID* IE from the transmission schedule on BCCH.

**Information Block update:**
If the SYSTEM INFORMATION UPDATE REQUEST message contains segments for an IB without *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB segments are included, then the Node B shall only update the contents of the IB segments without any modification in segment scheduling.

If the Node B successfully completes the updating of the physical channel scheduling cycle according to the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond to the CRNC with a SYSTEM INFORMATION UPDATE RESPONSE message.

### 8.2.16.3 Unsuccessful Operation

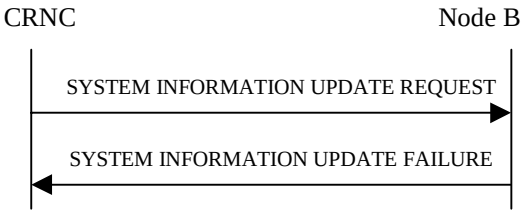



**Figure 23: System Information Update procedure, Unsuccessful Operation**

If the Node B is unable to update the physical channel scheduling cycle according to all the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond with a SYSTEM INFORMATION UPDATE FAILURE message with an appropriate cause value.

The Node B shall not incorporate any of the requested changes into the physical channel scheduling cycle, and the previous system information configuration shall remain intact.

Typical cause values are:

**Radio Network Layer Cause:**

- SIB Origination in Node B not Supported

**Miscellaneous Cause:**

- Hardware failure
- Control Processing overload
- O&M Intervention

### 8.2.16.4 Abnormal Conditions

The Node B shall reject, with the cause value "SIB origination in Node B not supported", requests for Node B originated system information blocks that make use of a value tag.

The Node B shall reject the requested update with cause value "BCCH scheduling error" if:

- After having handled a certain *MIB/SB/SIB information* IE repetition, an illegal BCCH schedule results;
- If a *MIB/SB/SIB Information* IE repetition includes an *IB SG REP* IE or an *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated. This rule shall apply even if the scheduling instructions in *IB SG REP* IE and *IB SG POS* IE were the same as the current scheduling instructions for the concerned IB;
- If a *MIB/SB/SIB Information* IE repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is no IB in the BCCH schedule with the same IB Type and IB OC ID;

- If a *MIB/SB/SIB Information* IE repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID but it is requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated.

## 8.2.17 Radio Link Setup

### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD - The Radio Link Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of an HS-DSCH on one radio link and it can include the establishment of an E-DCH on one or more radio links.]

[TDD - The Radio Link Setup procedure is used to establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, or DCHs and an HS-DSCH, including also combinations where one or more transport channel types are not present.]

### 8.2.17.2 Successful Operation

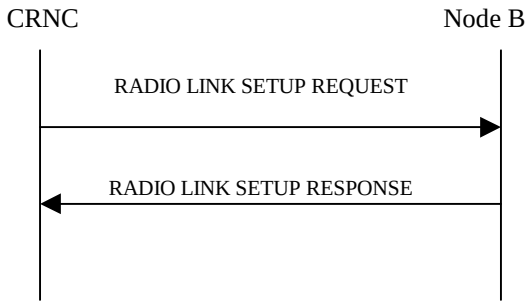



**Figure 24: Radio Link Setup procedure, Successful Operation**

The procedure is initiated with a RADIO LINK SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception of the RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

**Transport Channels Handling:**

**DCH(s):**

[TDD - If the *DCH Information* IE is present, the Node B shall configure the new DCH(s) according to the parameters given in the message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, then the Node B shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

[FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]

For a set of co-ordinated DCHs, the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. [FDD - If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE, ref. [16]].

The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs as the FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

[FDD - The *Diversity Control Field* IE indicates for each RL (except the first RL in the message) whether the Node B shall combine the concerned RL or not.

- If the *Diversity Control Field* IE is set to"May", the Node B shall decide for either of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

The signalled *Diversity Control Field* IE is applied to Dedicated Transport Channels (DCH) only. In case of E-DCH it shall always be assumed to be set to "Must". When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.]

[FDD - In the RADIO LINK SETUP RESPONSE message, the Node B shall indicate for each RL with the Diversity Indication in the *RL Information Response* IE whether the RL is combined or not.]

- [FDD - In case of not combining with a RL previously listed in the RADIO LINK SETUP RESPONSE message or for the first RL in the RADIO LINK SETUP RESPONSE message, and if the *DCH Indicator For E-DCH-HSDPA Operation* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]
- [FDD –For the first E-DCH RL in the RADIO LINK SETUP RESPONSE message, the Node B shall include in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each E-DCH MAC-d flow of this RL.]
- [FDD - Otherwise in case of combining, the *RL ID* IE indicates (one of) the RL(s) previously listed in this RADIO LINK SETUP RESPONSE message with which the concerned RL is combined. In case of combining an E-DCH RL, one of the RLs previously listed in this RADIO LINK SETUP RESPONSE message including the *E-DCH FDD Information Response* IE shall be regarded as the RL with which the concerned E-DCH RL is combined.]

[TDD - The Node B shall include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be specified for only one of the DCHs in the set of co-ordinated DCHs.

**[TDD - DSCH(s)]:**

[TDD - If the *DSCH Information* IE is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *DSCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DSCH.]

[TDD - The Node B shall include in the *DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and the *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.]

**[TDD - USCH(s)]:**

[TDD - If the *USCH Information* IE is present, the Node B shall configure the new USCH(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *USCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the USCH.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *TNL QoS* IE in the *USCH Information* IE and if ALCAP is not used, the Node B may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related USCH.]

[TDD -If the *USCH Information* IE is present, the Node B shall include in the *USCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and the *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

**HS-DSCH:**

If the *HS-DSCH Information* IE is present in the RADIO LINK SETUP REQUEST message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The Node B shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message.

- The Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.

- If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.

- If the RADIO LINK SETUP REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD – The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [TDD – The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the RADIO LINK SETUP RESPONSE message.]

**[FDD - E-DCH]:**

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]

[FDD – If the *E-DCH FDD Information* IE is present in the RADIO LINK SETUP REQUEST message:]

- [FDD – The Node B shall setup the requested E-DCH resources on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *RL specific E-DCH FDD Information* IE for an E-DCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions for the related reordering queue.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" the Node B shall assume scheduled grants being configured for the concerned E-DCH MAC-d flow.]

- [FDD – If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD – The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B]

  - [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message.]

  - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK SETUP RESPONSE message for the initial grant for the serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

**[FDD - E-DCH -HS-DSCH]:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *DCH Indicator For E-DCH-HSDPA Operation* IE, then the Node B shall ignore the *DCH Information* IE in the RADIO LINK SETUP REQUEST message.]

**Physical Channels Handling:**

**[FDD - Compressed Mode]:**

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or the Node B Communication Context is deleted.]

[FDD - If the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message, the Node B shall use or not the alternate scrambling code as indicated for each DL Channelisation Code in the *Transmission Gap Pattern Sequence Code Information* IE.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the Node B shall use the information to activate the indicated Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* refers to the latest passed CFN with that value The Node B shall treat the received *TGCFN* IEs as follows:]

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the Node B shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the Node B shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the Node B shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE and the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall ignore, when activating the Transmission Gap Pattern Sequence(s), the information provided by the *Downlink Compressed Mode Method* IE if included for the concerned Transmission Gap Pattern Sequence(s).]

**[FDD - DL Code Information]:**

[FDD - When more than one DL DPDCH is assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

**[TDD - PDSCH RL ID]:**

[TDD - If the *PDSCH RL ID* IE is included in RADIO LINK SETUP REQUEST message, the Node B shall use the PDSCH RL ID as an identifier for the PDSCH and/or PUSCH in this radio link.]

**[FDD – Phase Reference Handling]:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Primary CPICH Usage For Channel Estimation* IE and has the value "Primary CPICH shall not be used", the Node B shall assume that the UE is not using the Primary CPICH for channel estimation. If the RADIO LINK SETUP REQUEST message does not include the *Primary CPICH Usage For Channel Estimation* IE or includes the *Primary CPICH Usage*

*For Channel Estimation* IE and has the value "Primary CPICH may be used", the Node B shall assume that the UE may use the Primary CPICH for channel estimation.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Secondary CPICH Information* IE, the Node B shall assume that the UE may use the Secondary CPICH indicated by the *Common Physical Channel ID* IE for channel estimation.]

**General:**

[FDD - If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD - The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

[1.28Mcps TDD - The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control according [19] and [21].]

[FDD - If the received *Limited Power Increase* IE is set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC UL Step Size* IE, the Node B shall configure the uplink TPC step size according to the parameters given in the message.]

[1.28 Mcps TDD - The Node B shall configure the HS-SCCH TPC step size to the same value as the *TDD TPC DL Step Size* IE of the lowest numbered DL CCTrCH whose *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE.]

**[FDD - DPCH Handling]:**

[FDD – If the *UL DPDCH Indicator For E-DCH Operation* IE is set to "UL DPDCH not present", the *Min UL Channelisation Code Length* IE, the *Puncture Limit* IE and the *TFCS* IE within the *UL DPCH Information* IE shall be ignored.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *DL DPCH Information* IE, then the Node B shall configure the concerned Node B Communication Context to use DPCH in the downlink, i.e. with a DL DPCCH and a DL DPDCH.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Information* IE, then the Node B shall configure the concerned Node B Communication Context to use F-DPCH in the downlink, i.e. with transmission of only the TPC field.]

**Radio Link Handling:**

**[FDD - Transmit Diversity]:**

[FDD - When the *Diversity Mode* IE is set to "*STTD*"or "*Closedloop mode1*", the Node B shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the *Transmit Diversity Indication* IE]

**DL Power Control:**

[FDD - The Node B shall start any DL transmission using the initial DL power specified in the message on each DL DPCH or on the F-DPCH of the RL until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. If the Node B Communication Context is configured to use DPCH in the downlink, during compressed mode, the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the Node B shall apply the DPC mode indicated in the message and be prepared that the DPC mode may be changed during

the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

[3.84 Mcps TDD - The Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall start any DL transmission on each DCH type CCTrCH using the initial CCTrCH DL power, as determined above, on each DL DPCH and on each Time Slot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[3.84 Mcps TDD - The Node B shall determine the maximum DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[3.84 Mcps TDD - The Node B shall determine the minimum DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[3.84Mcps TDD - The initial power, maximum power, and minimum power for DSCH type CCTrCH shall be determined as follows:

- If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.

- If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].

[1.28 Mcps TDD - The Node B shall determine the initial DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the Initial DL Power and ignore the *DL Time Slot ISCP info LCR* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall start any DL transmission on each timeslot within each DCH type CCTrCH using the initial DL power, as determined above, on each DL DPCH and on each timeslot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[1.28 Mcps TDD - The Node B shall determine the maximum DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[1.28 Mcps TDD - The Node B shall determine the minimum DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[1.28Mcps TDD – The Node B shall determine the initial power for each timeslot within the DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, and the *DL Time Slot ISCP Info LCR* IE, included in the *RL Information* IE, are included then the Node B shall use that power for the PDSCH and ignore the *Initial DL Transmission Power*

IE included in the *RL Information* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall start any DL transmission on each timeslot within each DSCH type CCTrCH using the initial DL power, as determined above, on each DL PDSCH and on each timeslot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[1.28 Mcps TDD - The Node B shall determine the maximum DL power for each timeslot within the DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[1.28 Mcps TDD - The Node B shall determine the minimum DL power for each timeslot within the DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[3.84Mcps TDD - If the *DL Time Slot ISCP Info* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD - If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the Node B shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.7, using the *DL Power Balancing Information* IE. If the Node B starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. $P_{init}$ shall be set to the power level indicated by the *Initial DL Transmission Power* IE.]

[FDD - If activation of power balancing by the RADIO LINK SETUP REQUEST message is supported by the Node B, the Node B shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

**[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:**

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

**General:**

If the RADIO LINK SETUP REQUEST message includes the *RL Specific DCH Information* IE,the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", the Node B shall use synchronisation procedure B according to subclause 4.3.2.4 in [10].]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the Node B may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the Node B shall

include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

**[FDD - Radio Link Set Handling]:**

[FDD - The *First RLS Indicator* IE indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC Pattern 01 Count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message a value that uniquely identifies the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH related information for RLs in different RL Sets shall not be common.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message the same value. This value shall uniquely identify the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH information for all RLs in a RL Set shall be common.]

[FDD - The UL out-of-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD - For all RLs having a common generation of E-RGCH information with another RL, or are candidates for a common generation of E-RGCH information with another RL, when this Node B would contain the E-DCH serving RL, the Node B shall assign to each RL the same value for the *E-DCH RL Set ID* IE, included in the RADIO LINK SETUP RESPONSE message, to uniquely identify these RLs as members of the same E-DCH RL Set within the Node B Communication Context.]

**Response Message:**

If the RLs are successfully established, the Node B shall and respond with a RADIO LINK SETUP RESPONSE message.

After sending the RADIO LINK SETUP RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall:

- [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16].]
- [TDD - start transmission on the new RL immediately as specified in [16].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the Node B shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
  - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
  - [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
  - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]

### 8.2.17.3 Unsuccessful Operation

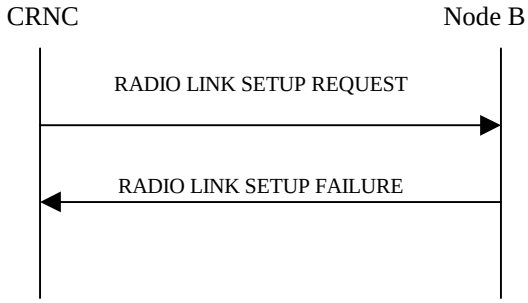



**Figure 25: Radio Link Setup procedure, Unsuccessful Operation**

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message. In this case, the Node B shall include the *Communication Control Port Id* IE in the RADIO LINK SETUP FAILURE message.]

[FDD - If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall include the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are as follows:

**Radio Network Layer Cause:**

- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- Number of DL codes not supported
- Number of UL codes not supported
- UL SF not supported
- DL SF not supported
- Dedicated Transport Channel Type not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- DPC mode change not supported
- Delayed Activation not supported
- F-DPCH not supported.

**Transport Layer Cause:**

- Transport Resources Unavailable

**Miscellaneous Cause:**

- O&M Intervention

- Control processing overload
- HW failure

### 8.2.17.4 Abnormal Conditions

[FDD - If the RADIO LINK SETUP REQUEST message contains the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must", the Node B shall regard the Radio Link Setup procedure as failed and respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes an *HS-PDSCH RL-ID* IE not referring to one of the radio links to be established, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", and if the *First RLS indicator* IE is set to "not first RLS", the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the *Measurement Power Offset* IE is not present, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink, if at least one Transmission Gap Pattern Sequence is configured with an SF/2 downlink compressed mode method in the Compressed Mode Configuration and if the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Code Information* IE for any DL Channelisation Code, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" and doesn"t include the *Secondary CPICH Information* IE, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message includes one of the *Not Used* IEs, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *E-DCH RL Indication* IE set to "E-DCH", but does not contain the *E-DCH FDD Information* IE, or if the message contains the *E-DCH FDD Information* IE, but does not contain the *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains information which would configure a HS-DSCH Radio Link, but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains information which would configure an E-DCH Radio Link, but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as 'HS-DSCH not configured' then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

## 8.2.18 Physical Shared Channel Reconfiguration

### 8.2.18.1 General

This procedure is used to assign HS-DSCH related resources to the Node B.

[TDD - This procedure is also used for handling PDSCH Sets and PUSCH Sets in the Node B, i.e.

- Adding new PDSCH Sets and/or PUSCH Sets,
- Modifying these, and
- Deleting them.]

[FDD - This procedure is also used to assign E-DCH related resources to the Node B.]

### 8.2.18.2 Successful Operation

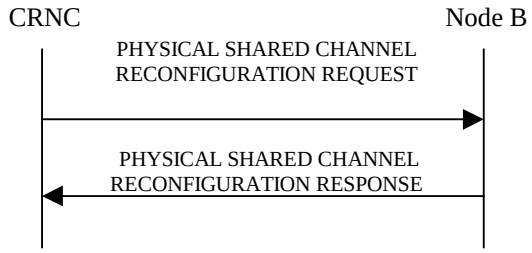



**Figure 26: Physical Shared Channel Reconfiguration, Successful Operation**

The procedure is initiated with a PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall activate the new configuration at the head boundary of the SFN according to the parameters given in the message.

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes an *SFN* IE, the Node B shall activate the new configuration at the head boundary of that specified SFN. If no *SFN* IE is included Node B shall activate the new configuration immediately.

**E-DCH and HS-DSCH Resources:**

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH Total Power* IE, the Node B shall not exceed this maximum transmission power on all HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes in the cell. If a value has never been set or if the value of the *HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH Total Power* IE is equal to or greater than the maximum transmission power of the cell the Node B may use all unused power for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH And E-HICH Total Power* IE in the *HSDPA And E-DCH Cell Portion Information* IE,

the Node B shall not exceed this maximum transmission power on all HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes in the cell portion indicated by *Cell Portion ID* IE. If a value has never been set or if the value of the *HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH And E-HICH Total Power* IE for the cell portion is equal to or greater than the maximum transmission power of the cell portion, the Node B may use all unused power for HS-PDSCH, HS-SCCH and E-AGCH, E-RGCH and E-HICH codes.]

**HS-DSCH Resources:**

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH And HS-SCCH Scrambling Code* IE, the Node B shall use this as the scrambling code for all HS-PDSCHs and HS-SCCHs. If a value has never been set, the Node B shall use the primary scrambling code for all HS-PDSCH and HS-SCCH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH FDD Code Information* IE, the Node B shall:

- if the *Number Of HS-PDSCH Codes* IE is set to "0", delete any existing HS-PDSCH resources from the cell.
- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are not currently configured in the cell, use this list as the range of codes for HS-PDSCH channels.
- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are currently configured in the cell, replace the current range of codes with this new range of codes for HS-PDSCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-SCCH FDD Code Information* IE, the Node B shall:

- If the *HS-SCCH FDD Code Information* IE contains no codes, delete any existing HS-SCCH resources from the cell.
- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are not currently configured in the cell, use this list of codes as the list of codes for HS-SCCH channels.
- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are currently configured in the cell, replace the current list of codes with this new list of codes for HS-SCCH channels.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH and HS-SCCH Total Power* IE for a particular timeslot, the Node B shall not exceed this maximum transmission power on all HS-PDSCH and HS-SCCH codes in that timeslot. If a value has never been set for that timeslot or if the value of the *HS-PDSCH and HS-SCCH Total Power* IE for that timeslot is equal to or greater than the maximum transmission power of the cell the Node B may use all unused power in that timeslot for HS-PDSCH and HS-SCCH codes.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH TDD Information* IE, the Node B shall:

- If the *HS-PDSCH TDD Information* IE contains no [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR* IE], delete any existing HS-PDSCH resources from the cell.
- If the *HS-PDSCH TDD Information* IE contains [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR* IE] and HS-PDSCH resources are not currently configured in the cell, use this IE as the list of timeslots / codes for HS-PDSCH channels.
- If the *HS-PDSCH TDD Information* IE contains [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR* IE] and HS-PDSCH resources are currently configured in the cell, replace the current list of timeslots / codes with this new list of timeslots / codes for HS-PDSCH channels.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *Add to HS-SCCH Resource Pool* IE, the Node B shall add this resource to the HS-SCCH resource pool to be used to assign HS-SCCH sets.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify HS-SCCH Resource Pool* IEs and includes any of [3.84Mcps TDD - *TDD Channelisation Code* IE, *Midamble Shift and Burst Type* IE, *Time Slot* IE], [1.28Mcps TDD - *First TDD Channelisation Code* IE, *Second TDD Channelisation Code*

IE, *Midamble Shift LCR* IE, *Time Slot LCR* IE, *TDD Channelisation Code* IE], for either HS-SCCH or HS-SICH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify HS-SCCH Resource Pool* IEs and includes the*HS-SCCH Maximum Power* IE, the Node B shall apply this value for the specified HS-SCCH code otherwise the old value is still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Delete from HS-SCCH Resource Pool* IEs, the Node B shall delete these resources from the HS-SCCH resource pool.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall use this as the scrambling code for all HS-PDSCHs and HS-SCCHs for the cell portion indicated by Cell Portion ID. If a value has never been set, the Node B shall use the primary scrambling code for all HS-PDSCH and HS-SCCH codes for the cell portion indicated by Cell Portion ID.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:

- if the *Number Of HS-PDSCH Codes* IE is set to "0", delete any existing HS-PDSCH resources from the cell portion indicated by *Cell Portion* ID IE.

- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list as the range of codes for HS-PDSCH channels.

- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current range of codes with this new range of codes for HS-PDSCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-SCCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:

- If the *HS-SCCH FDD Code Information* IE contains no codes, delete any existing HS-SCCH resources from the cell portion indicated by *Cell Portion ID* IE.

- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list of codes as the list of codes for HS-SCCH channels.

- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current list of codes with this new list of codes for HS-SCCH channels.]

**[FDD - E-DCH Resources]:**

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE, the Node B shall use this as the scrambling code for all E-AGCHs, E-RGCHs and E-HICHs. If a value has never been set, the Node B shall use the primary scrambling code for all E-AGCH, E-RGCH and E-HICH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH FDD Code Information* IE, the Node B shall:]

- [FDD - If the *E-AGCH FDD Code Information* IE contains no codes, delete any existing E-AGCH resources from the cell.]

- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are not currently configured in the cell, use this list of codes as the list of codes for E-AGCH channels.]

- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are currently configured in the cell, replace the current list of codes with this new list of codes for E-AGCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-RGCH/E-HICH FDD Code Information* IE, the Node B shall:]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains no codes, delete any existing E-RGCH/E-HICH resources from the cell.]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are not currently configured in the cell, use this list of codes as the list of codes for E-RGCH/E-HICH channels.]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are currently configured in the cell, replace the current list of codes with this new list of codes for E-RGCH/E-HICH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Maximum Target Received Total Wide Band Power* IE, the Node B shall use this value to control E-DCH scheduling.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Reference Received Total Wide Band Power* IE, the Node B may use this value to control E-DCH scheduling.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Target Non-serving E-DCH to Total E-DCH Power Ratio* IE, the Node B shall store this value and use this value for E-DCH scheduling by controlling the ratio of received E-DCH wide band power from non-serving UEs to the total received E-DCH power.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall use this as the scrambling code for all E-AGCHs, E-RGCHs and E-HICHs for the cell portion indicated by Cell Portion ID. If a value has never been set, the Node B shall use the primary scrambling code for all E-AGCH, E-RGCH and E-HICH codes for the cell portion indicated by Cell Portion ID.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:]

- [FDD - If the *E-AGCH FDD Code Information* IE contains no codes, delete any existing E-AGCH resources from the cell portion indicated by *Cell Portion* ID IE.]

- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are not currently configured in the cell portion indicated by *Cell Portion* ID IE, use this list of codes as the list of codes for E-AGCH channels.]

- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are currently configured in the cell portion indicated by *Cell Portion* ID IE, replace the current list of codes with this new list of codes for E-AGCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-RGCH/E-HICH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains no codes, delete any existing E-RGCH/E-HICH resources from the cell portion indicated by *Cell Portion ID* IE.]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list of codes as the list of codes for E-RGCH/E-HICH channels.]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current list of codes with this new list of codes for E-RGCH/E-HICH channels.]

**[TDD - PDSCH/PUSCH Addition]:**

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be added, the Node B shall add these new sets to its PDSCH/PUSCH configuration.]

[1.28Mcps TDD - If the *TSTD Indicator* IE is included in *PDSCH To Add Information LCR* IE and is set to "active", the Node B shall activate TSTD diversity for PDSCH transmissions using the specified PDSCH Set that are not beacon

channels [19,21]. If the *TSTD Indicator* IE is set to "not active" or the *TSTD Indicator* IE is not included in *PDSCH To Add Information LCR* IE, the Node B shall not activate TSTD diversity for the PDSCH Set.]

**[TDD - PDSCH/PUSCH Modification]:**

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be modified, and includes any of [3.84Mcps TDD - *DL/UL Code Information* IE, *Midamble Shift And Burst Type* IE, *Time Slot* IE], [1.28Mcps TDD - *DL/UL Code Information LCR* IE, *Midamble Shift LCR* IE, *Time Slot LCR* IE], *TDD Physical Channel Offset* IE, *Repetition Period* IE, *Repetition Length* IE, or *TFCI Presence* IE, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

**[TDD - PDSCH/PUSCH Deletion]:**

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be deleted the Node B shall delete these sets from its PDSCH/PUSCH configuration.]

**Response Message:**

**HS-DSCH/HS-SCCH Resources:**

In the successful case involving HS-PDSCH or HS-SCCH resources, the Node B shall store the value of *Configuration Generation ID* IE and it shall make these resources available to all the current and future HS-DSCH transport channels; and shall respond with PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.

**[TDD - PDSCH/PUSCH Addition/Modification/Deletion]:**

[TDD - In the successful case involving PDSCH/PUSCH addition, modification or deletion, the Node B shall add, modify and delete the PDSCH Sets and PUSCH Sets in the Common Transport Channel data base, as requested in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message, and shall make these available to all the current and future DSCH and USCH transport channels. The Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.]

### 8.2.18.3 Unsuccessful Operation

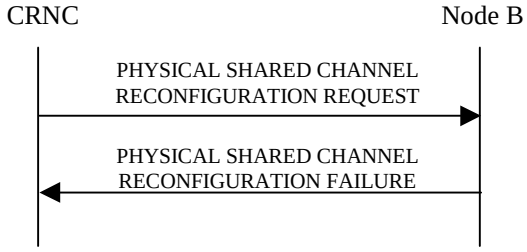



**Figure 27: Physical Shared Channel Reconfiguration procedure: Unsuccessful Opreration**

If the Node B is not able to support all parts of the configuration, it shall reject the configuration of all the channels in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message. The *Cause* IE shall be set to an appropriate value [TDD - either a single general cause value or PDSCH and PUSCH set specific cause values for each set that caused a failure within the *Unsuccessful DL Shared Channel Set* IE for PDSCH sets or *Unsuccessful UL Shared Channel Set* IE for PUSCH sets]. The *Configuration Generation ID* shall not be changed in the Node B.

If the configuration was unsuccessful, the Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message:

Typical cause values are as follows:

**Radio Network Layer Cause:**

- Cell not available
- Node B Resources unavailable

**Transport Layer Cause:**

- Transport Resources Unavailable

**Miscellaneous Cause:**

- O&M Intervention
- Control processing overload
- HW failure

### 8.2.18.4 Abnormal Conditions

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains *Add to HS-SCCH Resource Pool* IE, the *Modify HS-SCCH Resource Pool* IE, or the *Delete from HS-SCCH Resource Pool* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Configuration Generation ID* IE and does not contain at least one of *Add to HS-SCCH Resource Pool* IE, the *Modify HS-SCCH Resource Pool* IE, or the *Delete from HS-SCCH Resource Pool* IE the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[FDD - If neither E-AGCH nor E-HICH/E-RGCH resources are configured in the cell, and if one or more codes are included in the *E-AGCH FDD Code Information* IE and/or *E-RGCH/E-HICH FDD Code Information* IE but the *Maximum Target Received Total Wide Band Power* IE is not included in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message, then the Node B shall send PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[FDD – If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE, and the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE is not identical to the scrambling code of the phase reference, then the Node B shall reject the procedure using the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.]

[FDD – If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, and the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE is not identical to the scrambling code of the phase reference, then the Node B shall reject the procedure using the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.]

## 8.2.19 Reset

### 8.2.19.1 General

The purpose of the Reset procedure is to align the resources in the CRNC and the Node B in the event of an abnormal failure. The CRNC or the Node B may initiate the procedure.

### 8.2.19.2 Successful Operation

#### 8.2.19.2.1 Reset Initiated by the CRNC

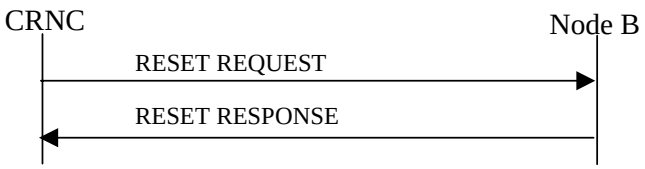



**Figure 27A Reset procedure (CRNC to Node B), Successful Operation**

The procedure is initiated with a RESET REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the *Reset Indicator* IE is set to "Communication Context", the Node B shall remove all the indicated Node B Communication Contexts (identified by a *Node B Communication Context ID* or a *CRNC Communication Context ID* IE) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to "Communication Control Port", the Node B shall remove all the Node B Communication Contexts controlled via the indicated Communication Control Port(s) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to "Node B", the Node B shall remove all the Node B Communication Contexts within the Node B and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

#### 8.2.19.2.2 Reset Initiated by the Node B

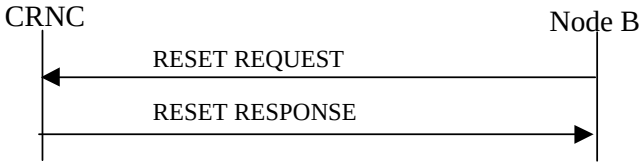



**Figure 27B Reset procedure (Node B to CRNC ), Successful Operation**

The procedure is initiated with a RESET REQUEST message sent from the Node B to the CRNC using the Node B Control Port.

If the *Reset Indicator* IE is set to "Communication Context", for all indicated CRNC Communication Contexts (indicated by a *CRNC Communication Context ID* or a *Node B Communication Context ID* IE), the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the indicated CRNC Communication Contexts. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to the Node B.

If the *Reset Indicator* IE is set to "Communication Control Port", for all the CRNC Communication Contexts controlled via the indicated Communication Control Port(s), the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts controlled via the indicated Communication Control Port(s). After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

If the *Reset Indicator* IE is set to the "Node B", for all the CRNC Communication Contexts related to this Node B, the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts related to this Node B. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

### 8.2.19.3 Unsuccessful Operation

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### 8.2.19.4 Abnormal Conditions

If the RESET REQUEST message is received any ongoing procedure related to a CRNC Communication Context in the CRNC or Node B Communication Context in the Node B indicated (explicitly or implicitly) in the message shall be aborted.

## 8.2.20 Cell Synchronisation Initiation [TDD]

### 8.2.20.1 General

This procedure is used by a CRNC to request the transmission of [3.84Mcps TDD - Cell Synchronisation Bursts sent in the PRACH time slots] [1.28Mcps TDD - SYNC_DL code sent in the DwPTS] and/or to start measurements on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL code] in a Node B.

### 8.2.20.2 Successful Operation

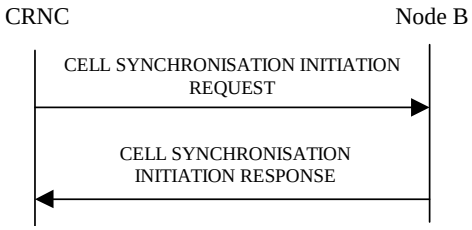



**Figure 27C Cell Synchronisation Initiation procedure, Successful Operation**

The procedure is initiated with a CELL SYNCHRONISATION INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall initiate the requested transmission according to the parameters given in the request and start the measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL code] if requested.

**[3.84Mcps TDD - Cell Sync Burst Transmission Initiation] [1.28Mcps TDD - SYNC_DL Code Transmission Initiation LCR]:**

When the [3.84Mcps TDD - Cell Sync Burst Transmission Initiation Information] [1.28Mcps TDD - SYNC_DL Code Transmission Initiation Information LCR] is present, the Node B shall configure the transmission of the cell synchronisation burst according to the parameters given in the CELL SYNCHRONISATION INITIATION REQUEST message. The *SFN* IE indicates the frame number when the cell shall start transmitting cell synchronisation bursts.

[3.84Mcps TDD - When the Cell Sync Burst Transmission Initiation Information is present and the "Frequency Acquisition" is indicated within the *Synchronisation Report Type* IE, the Node B shall first perform only frequency locking on received cell synchronisation bursts. Transmission of the indicated cell synchronisation bursts shall be started only if the frequency locking is performed successfully and "Frequency Acquisition completed" is reported to the RNC.]

**[3.84Mcps TDD - Cell Sync Burst Measurement characteristics] [1.28Mcps TDD - SYNC_DL Code Measurement characteristics LCR]:**

When the [3.84Mcps TDD - Cell Sync Burst Measurement Initiation Information][1.28Mcps TDD – SYNC_DL Code Measurement Initiation Information LCR] is present, the Node B shall initiate measurements on the indicated cell synchronisation burst.

If the *SFN* IE is present, the Node B shall after measurement of the indicated [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] adjust the frame number of the indicated cell according to the SFN of the CELL SYNCHRONISATION INITIATION REQUEST message. This adjustment shall only apply to the late entrant cell at the late entrant phase.

**Synchronisation Report characteristics:**
The *Synchronisation Report Characteristics* IE indicates how the reporting of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurement shall be performed. Whenever the Cell Synchronisation Initiation procedure is initiated, only [3.84Mcps TDD - the "Frequency Acquisition completed" or] "Frame related" report characteristics type shall apply.

[3.84Mcps TDD - If the *Synchronisation Report characteristics type* IE is set to "Frequency Acquisition completed", the Node B shall signal completion of frequency acquisition to the RNC when locking is completed.]

If the *Synchronisation Report characteristics type* IE is set to "Frame related", the Node B shall report the result of the cell synchronisation burst measurement after every measured frame.

[3.84Mcps TDD - If the *Cell Sync Burst Arrival Time* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the cell synchronisation burst of a neighbouring cell is expected.]

[3.84Mcps TDD - If the *Cell Sync Burst Timing Threshold* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Arrival Time* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the SYNC_DL Code of a neighbouring cell is expected.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Timing Threshold* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

**Response message:**
If the Node B was able to initiate the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission and/or measurement requested by the CRNC it shall respond with the CELL SYNCHRONISATION INITIATION RESPONSE message sent over the Node B Control Port.

### 8.2.20.3 Unsuccessful Operation

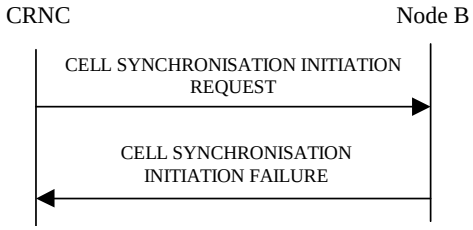



**Figure 27D Cell Synchronisation Initiation procedure, Unsuccessful Operation**

If the requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] cannot be initiated, the Node B shall send a CELL SYNCHRONISATION INITIATION FAILURE message over the Node B control port. The message shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause:**

- Cell Synchronisation not supported
- Power level not supported
- Measurement Temporarily not Available
- Frequency Acquisition not supported

**Miscellaneous Cause:**

- O&M Intervention
- HW failure

### 8.2.20.4 Abnormal Conditions

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## 8.2.21 Cell Synchronisation Reconfiguration [TDD]

### 8.2.21.1 General

This procedure is used by a CRNC to reconfigure the transmission of [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] and/or to reconfigure measurements on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] in a Node B.

### 8.2.21.2 Successful Operation

#### 8.2.21.2.1 General

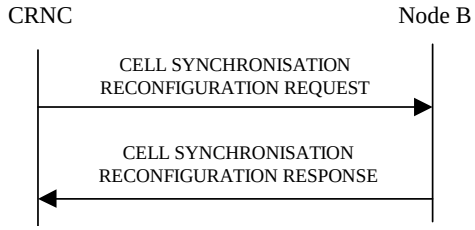



**Figure 27E Cell Synchronisation Reconfiguration procedure, Successful Operation**

The procedure is initiated with a CELL SYNCHRONISATION RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission and/or measurements according to the parameters given in the request.

#### 8.2.21.2.2 [3.84Mcps TDD - Cell Sync Burst Schedule]

Within the CELL SYNCHRONISATION RECONFIGURATION REQUEST message first the schedule for the steady state phase is fixed. I.e. the number of cycles per SFN period is defined with the same schedule. For each cycle, the number of repetitions is defined according to following equations:

Cycle length: 4096 / value of *Number Of Cycles Per SFN Period* IE

Repetition period: Cycle length / value of *Number Of Repetitions Per Cycle Period* IE

Cell Sync Frame number is calculated by:

SFN = floor((k-1) * Cycle length + (i-1)* Repetition period)

k = {1, 2, 3, .. Number of cycle per SFN period}

i = {1, 2, 3, .. Cell Sync Frame number within cycle period}

#### 8.2.21.2.3 [1.28Mcps TDD - SYNC_DL Code Schedule]

Within the CELL SYNCHRONISATION RECONFIGURATION REQUEST message first the schedule for the steady state phase is fixed. The "schedule" includes

- the list of frame numbers SFN within the SFN period where SYNC_DL Code transmission or reception takes place, i.e. the "synchronisation frames", and
- the associated actions (SYNC_DL Code transmission, reception, averaging, reporting etc) to be performed for synchronisation purpose by the Node B at each of these SFNs.

Within the synchronisation frames, only the first subframe shall be used for sending or receiving a SYNC_DL Code in the DwPTS while in the second subframe, normal operation continues.

The synchronisation schedule includes the option of averaging of measured correlation results within the Node B over a sequence of measurements, for increasing the reliability of the Time of Arrival measurement obtained from the correlation results. For this purpose, the concept of "subcycles" has been introduced: Each Synchronisation Cycle is devided into "subcycles" where in each subcycle, the same set of SYNC_DL transmissions and receptions is performed, and averaging takes place over all the subcycles within a Synchronisation Cycle. Since the list of actions (transmission, measurements etc) is the same in each subcycle, and the subcycles are repeated to make up a cycle, and the cycles make up an SFN period, the full list of actions is derived by the actions specified for a subcycle.

The full list of SFNs which make up the synchronisation schedule within the SFN period are calculated in Node B and CRNC autonomously based on the following parameters included in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message: "Number of cycles per SFN period", "Number of subcycles per cycle period", and "Number of repetitions per cycles period", along the following equations:

Cycle length: 4096 / value of *Number Of Cycles Per SFN Period* IE

Subcycle length: Cycle length / value of *Number Of Subcycles Per Cycle Period* IE

Repetition period: Subcycle length / value of *Number Of Repetitions Per Cycle Period* IE

SFN = floor((k-1) * Cycle length + (j-1)*Subcycle length + (i-1)* Repetition period)

k = {1, 2, 3, .. Number of cycle per SFN period}

j = {1, 2, 3, .. Number of subcycles per cycle}

i = {1, 2, 3, .. Number of repetitions per cycle period}

Note that if the *Number Of Subcycles Per Cycle* IE is equal to 1, then the subcycles are identical to the "Synchronisation Cycles".

If the *Number Of Subcycles Per Cycle* IE is included in the CELL SYNCHRONISATION RECONFIGURATION REQUEST [TDD] message, then the Node B shall apply this number for dividing the Synchronisation Cycles in Subcycles. If the IE is not present, then the Node B shall assume that there is one subcycle per synchronisation cycle only, which is identical to the synchronisation cycle.

Averaging is performed as follows:

- From each SYNC_DL code being received according to the schedule, the Node B shall calculate a "correlation function" by matching the received data with the respective expected code.
- Therefore the set of measurements within one subcycle provides a set of "correlation functions".
- The set of correlation functions of the first subcycle within a synchronisation cycle is stored in an averaging memory.
- The sets of correlation functions of the subsequent subcycles within a synchronisation cycle are combined with the available contents of the "averaging memory", to produce an average over all the sets of correlation functions within a synchronisation cycle.
- At the end of a synchronisation cycle, the Time-of-Arrival measurements for that synchronisation cycle are obtained by evaluating the final set of correlation functions.

These Time-of-Arrival measurements, together with associated SIR values obtained from the averaged correlation functions, are included in a Measurement Report to the CRNC, according to a measurement reporting plan.

In addition, the Time-of-Arrival measurements may optionally be used for autonomous self-adjustment of the timing of the respective cell.

#### 8.2.21.2.4 [3.84Mcps TDD - Cell Sync Burst Transmission Reconfiguration] [1.28Mcps TDD - SYNC_DL Code Transmission Reconfiguration]

When the [3.84Mcps TDD - Cell Sync Burst Transmission Reconfiguration Information] [1.28Mcps TDD - SYNC_DL Code Transmission Reconfiguration Information LCR] is present, the Node B shall reconfigure the transmission of the [3.84Mcps TDD - cell synchronisation burst] [1.28Mcps TDD - SYNC_DL Code] according to the parameters given in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message.

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Cell Sync Burst Code* IE, the Node B shall reconfigure the synchronisation code in the cell according to the *Cell Sync Burst Code* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Cell Sync Burst Code Shift* IE, the Node B shall reconfigure the synchronisation code shift in the cell according to the *Cell Sync Burst Code Shift* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *DL Transmission Power* IE, the Node B shall reconfigure the DL transmission power of the cell synchronisation burst in the cell according to the *DL Transmission Power* IE value.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *DwPCH Power* IE, the Node B shall store the DwPCH power according to the *DwPCH Power* IE value. For the duration of those subsequent transmissions of the DwPCH which are specifically for the purpose of Node B synchronisation the power of the DwPCH shall be set to the stored power. During subsequent transmissions of the DwPCH which are for normal operation the power of the DwPCH shall assume its normal level.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Sync_DL Code ID* IE, the Node B shall reconfigure the SYNC_DL Code in the cell according to the *Sync_DL Code ID* IE value.]

#### 8.2.21.2.5 [3.84Mcps TDD - Cell Sync Burst Measurement Reconfiguration] [1.28Mcps TDD - SYNC_DL Code Measurement Reconfiguration]

When the [3.84Mcps TDD - Cell Sync Burst Measurement Reconfiguration Information] [1.28Mcps TDD - Cell SYNC_DL Code Measurement Reconfiguration Information LCR] is present, the Node B shall reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements according the parameters given in the message.

If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the [3.84Mcps TDD -Cell Sync Burst Measurement Information] [1.28Mcps TDD – SYNC_DL Code Measurement Information LCR], the measurements shall apply on the individual [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Codes] on the requested Sync Frame number.

[1.28Mcps TDD - When the *Propagation Delay Compensation* IE is present in the SYNC_DL Code Measurement Information LCR, the Node B shall, if supported, perform the following functions: (1) use the respective SYNC_DL measurement (after potential averaging) to perform the self-adjustment of the respective cell"s timing at the end of a Synchronisation Cycle; (2) include the *Accumulated Clock Update* IE in the CELL SYNCHRONISATION REPORT message, to report the total accumulated amount of timing adjustments since the last report to the RNC. This Accumulated Clock Update value shall also include the adjustments which may have been performed by explicit order from the CRNC in the CELL SYNCHRONISATION ADJUSTMENT REQUEST message. The times for self-adjustment at the end of a synchronisation cycle shall be independent from the measurement reporting characteristics; the Accumulated Adjustment values shall be included in the CELL SYNCHRONISATION REPORT messages without influencing the frequency of measurement reporting.]

If the *Synchronisation Report Type* IE is provided, the measurement reporting shall apply according the parameter given in the message.

**Synchronisation Report characteristics:**
The *Synchronisation Report Characteristics* IE indicates how the reporting of the cell synchronisation burst measurement shall be performed.

If the *Synchronisation Report Characteristics Type* IE is set to "Frame related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD – SYNC_DL Code] measurement after every measured frame.

If the *Synchronisation Report Characteristics Type* IE is set to "SFN period related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD – SYNC_DL Code] measurements after every SFN period.

If the *Synchronisation Report Characteristics Type* IE is set to "Cycle length related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD – SYNC_DL Code] measurements after every cycle length within the SFN period.

If the *Synchronisation Report Characteristics Type* IE is set to "Threshold exceeding", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurement when the [3.84Mcps TDD - Cell Synchronisation Burst timing] [1.28Mcps TDD – SYNC_DL Code timing] rises or falls more than the requested threshold value compared to the arrival time in synchronised state which is represented by the [3.84Mcps TDD - *Cell Sync Burst Arrival Time* IE] [1.28Mcps TDD – *SYNC_DL Code ID Arrival Time* IE].

[3.84Mcps TDD - If the *Cell Sync Burst Arrival Time* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the cell synchronisation burst of a neighbouring cell is expected.]

[3.84Mcps TDD - If the *Cell Sync Burst Timing Threshold* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this new threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Arrival Time* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the SYNC_DL Code of a neighbouring cell is expected.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Timing Threshold* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

**Response message:**
If the Node B was able to reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD – SYNC_DL Code] transmission and/or measurement requested by the CRNC, it shall respond with the CELL SYNCHRONISATION RECONFIGURATION RESPONSE message sent over the Node B Control Port.

### 8.2.21.3 Unsuccessful Operation

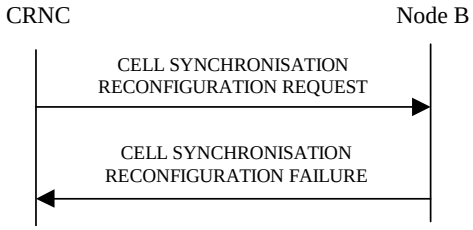



**Figure 27F Cell Synchronisation Reconfiguration procedure, Unsuccessful Operation**

If the Node B cannot reconfigure the requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code], the CELL SYNCHRONISATION RECONFIGURATION FAILURE message shall be sent to the CRNC. The message shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause:**

- Cell Synchronisation not supported
- Power level not supported
- Measurement Temporarily not Available

**Miscellaneous Cause:**

- O&M Intervention

- HW failure

#### 8.2.21.4 Abnormal Conditions

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### 8.2.22 Cell Synchronisation Reporting [TDD]

#### 8.2.22.1 General

This procedure is used by a Node B to report the result of [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements requested by the CRNC with the Cell Synchronisation Initiation or Cell Synchronisation Reconfiguration procedure.

#### 8.2.22.2 Successful Operation

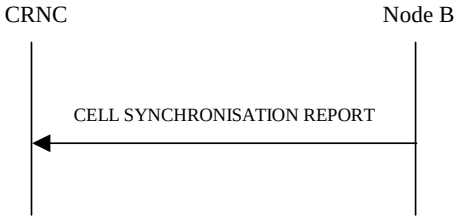



**Figure 27G Cell Synchronisation Reporting procedure, Successful Operation**

If the requested synchronisation measurement reporting criteria are met, the Node B shall initiate a Cell Synchronisation Reporting procedure. The CELL SYNCHRONISATION REPORT message shall use the Node B Control Port.

In the steady state phase when several [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Codes] shall be measured per Sync Frame number, the sequence of the reported measured values shall be the same as defined in the Cell Synchronisation Reconfiguration procedure.

[1.28Mcps TDD - The Node B shall, if supported, include the *Accumulated Clock Update* IE in the CELL SYNCHRONISATION REPORT message whenever the CRNC has included at least one instance of the *Propagation Delay Compensation* IE in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message. The *Accumulated Clock Update* IE shall include the accumulated timing adjustment which has been done as commanded by the CRNC, as well as by self-adjustment, since the last *Accumulated Clock Update* IE report.]

If the achieved measurement accuracy does not fulfil the given accuracy requirement defined in [23], the Cell Sync Burst not available shall be reported.

#### 8.2.22.3 Abnormal Conditions

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### 8.2.23 Cell Synchronisation Termination [TDD]

#### 8.2.23.1 General

This procedure is used by the CRNC to terminate a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission or measurement previously requested by the Cell Synchronisation Initiation procedure or Cell Synchronisation Reconfiguration procedure.

### 8.2.23.2 Successful Operation




**Figure 27H Cell Synchronisation Termination procedure, Successful Operation**

This procedure is initiated with a CELL SYNCHRONISATION TERMINATION REQUEST message, sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate [3.84Mcps TDD - transmission of Cell Synchronisation Bursts or reporting of Cell Synchronisation Burst measurements] [1.28Mcps TDD - transmission of SYNC_DL Codes or reporting of SYNC_DL Code measurements] corresponding to the *CSB Transmission ID* IE or *CSB Measurement ID* IE.

### 8.2.23.3 Abnormal Conditions

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## 8.2.24 Cell Synchronisation Failure [TDD]

### 8.2.24.1 General

This procedure is used by the Node B to notify the CRNC that a [3.84Mcps TDD – Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission or synchronisation measurement procedure can no longer be supported.

### 8.2.24.2 Successful Operation

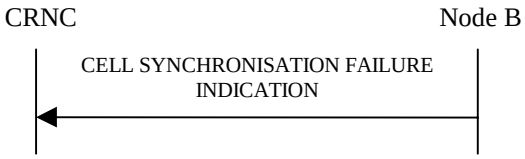



**Figure 27I Cell Synchronisation Failure procedure, Successful Operation**

This procedure is initiated with a CELL SYNCHRONISATION FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B Control Port, to inform the CRNC that a previously requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD – SYNC_DL Codes] can no longer be supported.

If the transmission of a [3.84Mcps TDD – Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] has failed, then the Node B shall include the *CSB Transmission ID* IE in the CELL SYNCHRONISATION FAILURE INDICATION message to uniquely identify the concerned [3.84Mcps TDD – Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] Transmission.

If the measurement of a [3.84Mcps TDD – Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] has failed, then the Node B shall include the *CSB Measurement ID* IE in the CELL SYNCHRONISATION FAILURE INDICATION message to uniquely identify the concerned [3.84Mcps TDD – Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] Measurement.

### 8.2.24.3 Abnormal Conditions

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## 8.2.25 Cell Synchronisation Adjustment [TDD]

### 8.2.25.1 General

The purpose of Cell Synchronisation Adjustment procedure is to allow the CRNC to adjust the timing of the radio transmission of a cell within a Node B for time alignment.

### 8.2.25.2 Successful Operation

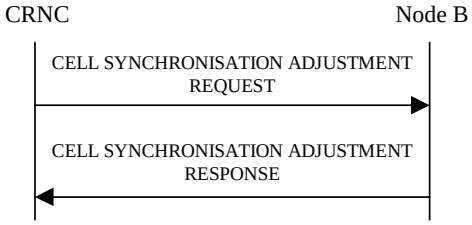



**Figure 27J Cell Synchronisation Adjustment, Successful Operation**

This procedure is initiated with a CELL SYNCHRONISATION ADJUSTMENT REQUEST message sent by the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B adjusts its timing according to the parameters given in the message.

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Frame Adjustment Value* IE the Node B shall apply the frame adjustment in the cell according to the *Frame Adjustment Value* IE value.

[3.84Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Timing Adjustment Value* IE the Node B shall apply the timing adjustment in the cell according to the *Timing Adjustment Value* IE value.]

[1.28Mcps TDD – If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Timing Adjustment Value LCR* IE the Node B shall apply the timing adjustment in the cell according to the *Timing Adjustment Value LCR* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *DL Transmission Power* IE, the Node B shall apply the transmission power of the Cell Synchronisation Burst according to the *DL Transmission Power* IE value.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *DwPCH Power* IE, the Node B shall store the DwPCH power according to the *DwPCH Power* IE value. For the duration of those subsequent transmissions of the DwPCH which are specifically for the purpose of Node B synchronisation the power of the DwPCH shall be set to the stored power. During subsequent transmissions of the DwPCH which are for normal operation the power of the DwPCH shall assume its normal level.]

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *SFN* IE, the Node B shall apply the synchronisation adjustment starting with the SFN number indicated in the message.

When the cell synchronisation adjustment is successfully done by the Node B, the Node B shall respond with a CELL SYNCHRONISATION ADJUSTMENT RESPONSE message.

### 8.2.25.3 Unsuccessful Operation

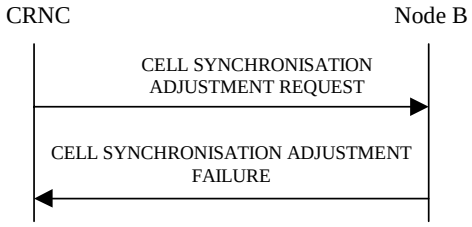



**Figure 27K Cell Synchronisation Adjustment, Unsuccessful Operation**

If the Node B cannot perform the indicated cell synchronisation adjustment due to hardware failure or other problem it shall send the CELL SYNCHRONISATION ADJUSTMENT FAILURE as a response.

Typical cause values are as follows:

**Radio Network Layer Cause**

- Cell Synchronisation Adjustment not supported
- Power level not supported

**Miscellaneous Cause**

- O&M Intervention
- HW failure

### 8.2.25.4 Abnormal Conditions

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## 8.2.26 Information Exchange Initiation

### 8.2.26.1 General

This procedure is used by a CRNC to request the initiation of information provisioning from a Node B.

### 8.2.26.2 Successful Operation

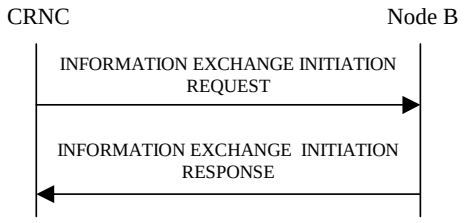



**Figure 27L: Information Exchange Initiation procedure, Successful Operation**

The procedure is initiated with the INFORMATION EXCHANGE INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall provide the requested information according to the *Information Type Item* IE. Unless specified below, the meaning of the parameters are given in other specifications.

**Information Report Characteristics**
The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the Node B shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the Node B shall immediately report the requested information and then shall periodically initiate the Information Reporting procedure for all the requested information, with the requested reporting frequency.

If the *Information Report Characteristics* IE is set to "On Modification", the Node B shall immediately report the requested information if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the Node B shall initiate the Information Reporting procedure when the requested information becomes available. The Node B shall then initiate the Information Reporting procedure in accordance to the following conditions related to the *Information Type* IE:

1) If the *Information Type Item* IE is set to "DGPS Corrections", the Node B shall initiate the Information Reporting procedure when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.

2) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Time Recovery", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *Sat ID* IEs.

3) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

4) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the $t_{ot}$ or $WN_t$ parameter.

5) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the $t_{oa}$ or $WN_a$ parameter has occurred.

6) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

7) If any of the above *Information Type* IEs becomes temporarily unavailable, the Node B shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the Node B shall initiate the Information Reporting procedure for this specific Information.

**Response message**
If the Node B is able to initiate the information provision requested by the CRNC, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data if the data are available. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

### 8.2.26.3 Unsuccessful Operation

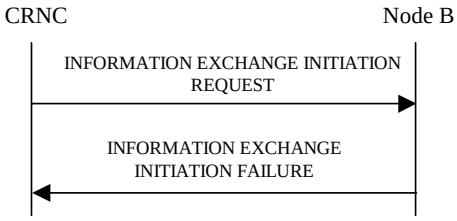



**Figure 27M: Information Exchange Initiation procedure, Unsuccessful Operation**

If the Information Type Item received in the *Information Type Item* IE indicates a type of information that cannot be provided, the Node B shall regard the Information Exchange Initiation procedure as failed.

If the requested information provision cannot be initiated, the Node B shall send the INFORMATION EXCHANGE INITIATION FAILURE message over the Node B control port. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause**

- Information temporarily not available.
- Information Provision not supported for the object.

### 8.2.26.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the Node B shall regard the Information Exchange Initiation procedure as failed.

If the *Information Type Item* IE is not set to "DGPS Correction", the *Information Report Characteristics* IE is set to "On Modification" and the *Information Threshold* IE is included in the INFORMATION EXCHANGE INITIATION REQUEST message, the Node B shall regard the Information Exchange Initiation procedure as failed.

## 8.2.27 Information Reporting

### 8.2.27.1 General

This procedure is used by a Node B to report the information requested by the CRNC with the Information Exchange Initiation procedure.

### 8.2.27.2 Successful Operation




**Figure 27N: Information Reporting procedure, Successful Operation**

If the requested information reporting criteria are met, the Node B shall initiate the Information Reporting procedure. The INFORMATION REPORT message shall use the Node B Control Port. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the CRNC when initiating the Information Exchange with the Information Exchange Initiation procedure.

The *Requested Data Value* IE shall include at least one IE containing the data to be reported.

### 8.2.27.3 Abnormal Conditions

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## 8.2.28 Information Exchange Termination

### 8.2.28.1 General

This procedure is used by the CRNC to terminate the provision of information previously requested by the Information Exchange Initiation procedure.

### 8.2.28.2 Successful Operation




**Figure 27O: Information Exchange Termination procedure, Successful Operation**

This procedure is initiated with an INFORMATION EXCHANGE TERMINATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate the provision of information corresponding to the Information Exchange ID.

### 8.2.28.3 Abnormal Conditions

-

## 8.2.29 Information Exchange Failure

### 8.2.29.1 General

This procedure is used by the Node B to notify the CRNC that information previously requested by the Information Exchange Initiation procedure can no longer be reported.

### 8.2.29.2 Successful Operation




**Figure 27P: Information Exchange Failure procedure, Successful Operation**

This procedure is initiated with the INFORMATION EXCHANGE FAILURE INDICATION message sent from the Node B to the CRNC using the Node B Control Port to inform the CRNC that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

## 8.2.30 MBMS Notification Update

### 8.2.30.1 General

This procedure is used to update the MBMS Notification Indicators to be sent over the MICH.

### 8.2.30.2 Successful Operation




**Figure 27Q: MBMS Notification Update procedure, Successful Operation**

The procedure is initiated with an MBMS NOTIFICATION UPDATE COMMAND message sent from the CRNC to the Node B using the Node B Control Port.

The Node B shall use the different NIs in the *NI Information* IE to generate, as specified in ref. [7], the notification indicators it shall transmit on the MICH starting at the next coming MICH CFN equal to the value in the *MICH CFN* IE and for a duration equal to the Modification Period.

If the *Modification Period* IE is included in the MBMS NOTIFICATION UPDATE COMMAND message, the Node B shall use this as the new Modification Period starting at the next coming MICH CFN equal to the value in the *MICH CFN* IE.

### 8.2.30.3 Abnormal Conditions

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# 8.3 NBAP Dedicated Procedures

## 8.3.1 Radio Link Addition

### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B Communication Context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.1.2 Successful Operation

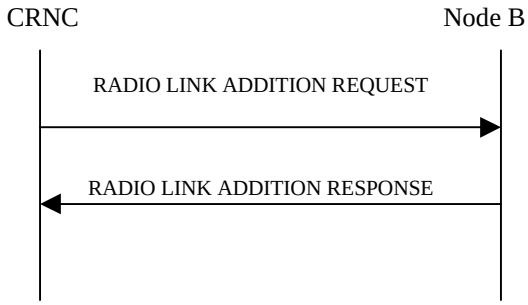



**Figure: 28 Radio Link Addition procedure, Successful Operation**

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

**Physical Channels Handling:**

[TDD – If the [3.84Mcps TDD - *UL DPCH Information* IE] [1.28Mcps TDD - *UL DPCH Information LCR* IE] is present, the Node B shall configure the new UL DPCH(s) according to the parameters given in the message.]

[TDD – If the [3.84Mcps TDD - *DL DPCH Information* IE] [1.28Mcps TDD - *DL DPCH Information LCR* IE] is present, the Node B shall configure the new DL DPCH(s) according to the parameters given in the message.]

**[FDD – Compressed Mode]:**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Compressed Mode Deactivation Flag* IE with value "Deactivate", the Node B shall not activate any compressed mode pattern in the new RLs. In all the other cases (Flag set to "Maintain Active" or not present), the ongoing compressed mode (if existing) shall be applied also to the added RLs.]

[FDD- If the Node B Communication Context is configured to use DPCH in the downlink and if the RADIO LINK ADDITION REQUEST message contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated for each DL Channelisation Code for which the *Transmission Gap Pattern Sequence Code Information* IE is set to "Code Change".]

**[FDD – DL Code Information]:**

[FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to ref. [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

**[TDD – CCTrCH Handling]:**

[TDD – If the *UL CCTrCH Information* IE is present, the Node B shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC UL Step Size* IE, the Node B shall configure the uplink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[TDD – If the *DL CCTrCH Information* IE is present, the Node B shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE, the Node B shall configure the downlink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[1.28 Mcps TDD - The Node B shall configure the HS-SCCH TPC step size to the same value as the *TDD TPC DL Step Size* IE of the lowest numbered DL CCTrCH whose *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE. If no *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE, it shall use the step size configured in other radio link.]

**Radio Link Handling:**

**Diversity Combination Control:**

The *Diversity Control Field* IE indicates for each RL whether the Node B shall combine the new RL with existing RL(s) or not.

- If the *Diversity Control Field* IE is set to "May", the Node B shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other - RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

[FDD - The signalled *Diversity Control Field* IE is only applicable for DCHs. In case of E-DCH, if any UARFCN(s) of the cells in the added RL(s) is not equal to at least one of the UARFCN(s) of the cells in the existing RL(s) in the Node B Communication Context, the Diversity Control Field, for those RL(s) shall be assumed to be set to "May", otherwise it shall be assumed to be set to "Must".]

When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.

In the case of not combining a RL with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or a RL previously listed in the RADIO LINK ADDITION RESPONSE message, the Node B shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that no combining is done. In this case, the Node B shall include in the *DCH Information Response* IE both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message. [FDD - In this case, for E-DCH, the Node B shall include in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearers to be established for each E-DCH MAC-d flow of this RL.]

In the case of combining with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, the Node B shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that the RL is combined. In this case, the *RL ID* IE indicates (one of) the previously established RL(s) or a RL previously listed in this RADIO LINK ADDITION RESPONSE message with which the new RL is combined. [FDD - In the case of combining with an E-DCH RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, one of the previously established RLs or a RL previously listed in this RADIO LINK ADDITION RESPONSE message including the *E-DCH FDD Information Response* IE shall be regarded as the RL with which the concerned E-DCH RL is combined. In case E-DCH RL is established for the first time, the Node B shall include *E-DCH FDD Information Response* IE instead of using the Diversity Indication of DCH RL in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. It shall include in the *E-DCH FDD Information Response* IE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearers to be established for each E-DCH MAC-d flow of this E-DCH RL.]

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the DCHs in a set of coordinated DCHs.

[TDD – The Node B shall include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH.]

**[FDD – Transmit Diversity]:**

[FDD – If the *Transmit Diversity Indicator* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall activate/deactivate the Transmit Diversity for each new Radio Link in accordance with the *Transmit Diversity Indicator* IE and the already known diversity mode.]

**DL Power Control:**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL DPCH or on the F-DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RLs for this Node B Communication Context. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE currently configured for the relevant Node B Communication Context and the downlink power control procedure (see subclause 8.3.7).]

[3.84 Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing CCTrCHs for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4).]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the initial DL power and ignore the *DL Time Slot ISCP info LCR*, otherwise the initial DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specifiedin [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RL/timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall store this value and not transmit with a higher power on any DL DPCH or on the F-DPCH of the RL. If no *Maximum DL Power* IE is included, any Maximum DL power stored for already existing RLs for this Node B Communication Contextshall be applied. If the Node B Communication Context is configured to use DPCH in the downlink, during compressed mode, the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall store this value and never transmit with a lower power on any DL DPCH or on the F-DPCH of the RL. If no *Minimum DL Power* IE is included, any Minimum DL power stored for already existing RLs for this Node B Communication Context shall be applied.]

[3.84 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum CCTrCH DL power, otherwise the maximum CCTrCH DL power is the *Maximum DL Power* IE included in the *RL Information* IE. If no *Maximum DL Power* IE is included (even if *CCTrCH Maximum DL Transmission Power* IEs are included), any maximum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

[3.84 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum CCTrCH DL power, otherwise the minimum CCTrCH DL power is the *Minimum DL Power* IE included in the *RL Information* IE. If no *Minimum DL Power* IE is included (even if *CCTrCH Minimum DL Transmission Power* IEs are included), any minimum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL DPCH. If no *Maximum DL Power* IE is included, any maximum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL DPCH. If no *Minimum DL Power* IE is included, any minimum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[3.84Mcps TDD - The initial power, maximum power, and minimum power for DSCH type CCTrCH shall be determined as follows:

- If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.

- If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].

[1.28 Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within a DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, and the *DL Time Slot ISCP Info LCR* IE, included in the *RL Information* IE, are included then the Node B shall use that power for the PDSCH and ignore the *Initial DL Transmission Power* IE included in the *RL Information* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each DL PDSCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RL/timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable PDSCH. If no *Maximum DL Power* IE is included, any maximum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable PDSCH. If no *Minimum DL Power* IE is included, any minimum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[3.84Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *DL Time Slot ISCP Info* IE, the Node B shall use the indicated value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD – If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the Node B shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported, according to subclause 8.3.7. In this case, the Node B shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the Node B starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. $P_{init}$ shall be set to the power level indicated by the *Initial DL Transmission Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on power level of existing RLs.]

**[1.28Mcps TDD – Uplink Synchronisation Parameters LCR]:**

[1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

**General:**

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific DCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific E-DCH Information* IE,the Node B may use the transport layer addresses and the binding identifiers received from the CRNC when establishing transport bearers for the MAC-d flows of the E-DCHs.

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the Node B may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the Node B shall include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", the Node B shall use synchronisation procedure B according to subclause 4.3.2.4 in [10]. The Node B shall select the TPC pattern as if "first RLS indicator" is set to "first RLS" according to subclause 5.1.2.2.1.2 in [10].]

**[FDD – Radio Link Set Handling]:**

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message a value that uniquely identifies the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH related information for RLs in different RL Sets shall not be common.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message the same value. This value shall uniquely identify the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH information for all RLs in a RL Set shall be common.]

[FDD – After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] shall, for each of the previously existing and newly established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD - For all RLs having a common generation of E-RGCH information with another RL, or are candidates for a common generation of E-RGCH information with another RL, when this Node B would contain the E-DCH serving RL, the Node B shall assign to each RL the same value for the *E-DCH RL Set ID* IE, included in the RADIO LINK ADDITION RESPONSE message, to uniquely identify these RLs as members of the same E-DCH RL Set within the Node B Communication Context.]

**[FDD - Serving HS-DSCH Radio Link Change]:**

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE, then *HS-PDSCH RL ID* IE indicates the new Serving HS-DSCH Radio Link:]

- [FDD - In the new configuration the Node B shall allocate the HS-PDSCH resources for the new Serving HS-PDSCH Radio Link.]
- [FDD - The Node B may include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  **[FDD - HS-DSCH Setup at Serving HS-DSCH Radio Link Change:]**

  [FDD - If the *HS-DSCH Information* IE is present in the *HS-DSCH Serving Cell Change Information* IE, then:]

  - [FDD - The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.]
  - [FDD - The Node B shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
  - [FDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]
  - [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]
  - [FDD - The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].]
  - [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
  - [FDD – If the RADIO LINK ADDITION REQUEST message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD – The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the *Serving Cell Change CFN* IE is included into the RADIO LINK ADDITION REQUEST message, then the Node B shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC. In the new configuration the Node B shall, if applicable, de-allocate the HS-PDSCH resources of the old Serving HS-PDSCH Radio Link. The Node B shall deactivate those resources at the next coming CFN with a value equal to the value requested by the RNC. ]

- [FDD- If the *Serving Cell Change CFN* IE is not included then the Node B shall activate immediately the resources that are allocated for the new serving HS-PDSCH Radio Link, and shall keep active the resources that are allocated for the previous serving HS-PDSCH Radio Link.]

- [FDD- If the *Serving Cell Change* CFN IE is not included into the RADIO LINK ADDITION REQUEST message, then the Node B shall include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD- If the *HS-DSCH Information* IE is present in the *HS-DSCH Serving Cell Change Information* IE, then the Node B shall include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD- If the Node B needs a bearer re-arrangement, then the Node B may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the requested Serving HS-DSCH Radio Link Change was successful or unsucessful, the Node B shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[FDD - E-DCH]:**

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE, then for every such RL:]

- [FDD – The Node B shall setup the E-DCH resources as configured in the Node B Communication Context.]

- [FDD – The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in *RL Information Response* IE for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH" in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

**[FDD - Serving E-DCH Radio Link Change:]**

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE, then *Serving E-DCH RL* IE indicates the new Serving E-DCH Radio Link:]

- [FDD - If the new Serving E-DCH RL is in this Node B:]

  - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for the initial grant for the new serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message]

- [FDD – The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for any of the other E-DCH Radio Links in the Node B Communication Context that have not been included in the *E-DCH FDD DL Control Channel Information* IE in *RL Information Response* IE.]

- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the Node B shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC. In the new configuration the Node B shall, if applicable, de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link. The Node B shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD - If the *Serving Cell Change CFN* IE is not included then the Node B shall activate immediately the resources that are allocated for the new serving E-DCH Radio Link.]

- [FDD - If the addition of the requested Serving E-DCH Radio Link was successful but the Serving E-DCH Radio Link change was unsuccessful, the Node B shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[FDD - E-DPCH Handling]:**

[FDD - If the RADIO LINK ADDITION REQUEST message includes an *E-DPCH Information* IE, the Node B shall use the new parameters for the related resource allocation operations]

**[FDD - E-DCH Setup:]**

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message:]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B:]

  - [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for the initial grant for the serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new configuration and include the new configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - For all RLs having a common generation of E-RGCH information with another RL, or are canditates for a common generation of E-RGCH information with another RL, when this Node B would contain the E-DCH serving RL, the Node B shall assign to each RL the same value for the *E-DCH RL Set ID* IE, included in the RADIO LINK ADDITION RESPONSE message, to uniquely identify these RLs as members of the same E-DCH RL Set within the Node B Communication Context.]

- [FDD - For each RL, for which E-DCH is configured, not having a common generation of E-RGCH and related information with another RL, or are no canditates for a common generation of E-RGCH related information with another RL, when this Node B would contain the E-DCH serving RL, the Node B shall assign different values for the *E-DCH RL Set ID* IE, included in the RADIO LINK ADDITION RESPONSE message, to uniquely identify different E-DCH RL Sets within the Node B Communication Context.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

**[TDD - HS-DSCH Setup]:**

[TDD - If the *HS-DSCH Information* IE is present in the RADIO LINK ADDITION REQUEST message, then]:

- [TDD - The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the HS-PDSCH RL ID IE.]

- [TDD - The Node B shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD - The Node B shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]

- [TDD - The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[TDD - Intra-Node B Serving HS-DSCH Radio Link Change]:**

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link]:

- [TDD - The Node B may include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**Response Message:**

If all requested RLs are successfully added, the Node B shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message, the Node B shall:

- [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16].]
- [TDD - start transmission on the new RL immediately as specified in [16].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
  - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
  - [FDD – start transmission on the DL DPDCH(s) of the new RL as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
  - [TDD – start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]

### 8.3.1.3 Unsuccessful Operation

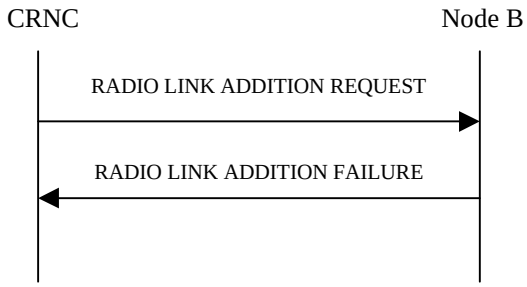



**Figure 29: Radio Link Addition procedure: Unsuccessful Operation**

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK ADDITION FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some RL(s) were established successfully, the Node B shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.]

[FDD – If the RADIO LINK ADDITION REQUEST contains a *C-ID* IE indicating that a Radio Link must be established on a Cell where DPC Mode change is not supported and DPC Mode can be changed for the relevant Node B Communication Context, the Node B shall consider the procedure as failed for the concerned Radio Link and shall respond with a RADIO LINK ADDITION FAILURE with the appropriate cause value ("DPC Mode change not supported").]

[FDD - If the requested Serving HS-DSCH Radio Link Change was successful, or if the addition of the requested serving HS-DSCH Radio Link was successful or existed already but the Serving HS-DSCH Radio Link change was unsucessful, the Node B shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

[FDD - If the requested Serving E-DCH Radio Link Change was successful, or if the addition of the requested serving E-DCH Radio Link was successful or existed already but the Serving E-DCH Radio Link change was unsucessful, the Node B shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

Typical cause values are as follows:

**Radio Network Layer Cause**

- Combining not supported
- Combining Resources not available

- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Reconfiguration CFN not elapsed
- CM not supported
- [FDD – DPC Mode change not supported]
- Delayed Activation not supported

**Transport Layer Cause**

- Transport Resources Unavailable

**Miscellaneous Cause**

- O&M Intervention
- Control processing overload
- HW failure

### 8.3.1.4 Abnormal conditions

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Compressed Mode Deactivation Flag* IE with the value "Deactivate" when compressed mode is active for the existing RL(s), and at least one of the new RL is added in a cell that has the same UARFCN (both UL and DL) of at least one cell with an already existing RL, the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM settings".]

[FDD – If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Individual" in the existing RL(s) and if the *DL Reference Power* IEs are included in the *RL Information* IE but the *DL Reference Power* IE is not present for each RL in the *RL Information* IE, the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IEs in the *RL Information* IE but the power balancing is not active in the existing RL(s) or the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s), the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must", the Node B shall regard the Radio Link Addition procedure as failed and respond with the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink, if at least one Transmission Gap Pattern Sequence is configured with an SF/2 downlink compressed mode method in the Compressed Mode Configuration and if the RADIO LINK ADDITION REQUEST message includes the *Transmission Gap Pattern Sequence Code Information* IE for any DL Channelisation Code, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE but not the *HS-DSCH FDD Information* IE and the Node B Communication Context is not configured for HS-DSCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE but the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving Cell Change CFN* IE but neither the *Serving E-DCH RL* IE nor *HS-DSCH Serving Cell Change Information* IE is included into, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message, but the *E-DPCH Information* IE is not present, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL-ID* IE not equal to the *RL ID* IE, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for HS-DSCH MAC-d flow being added, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains information which would configure a HS-DSCH Radio Link, but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains information which would configure an E-DCH Radio Link, but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *HS-DSCH Serving Cell Change Information* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as 'HS-DSCH not configured' then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

## 8.3.2 Synchronised Radio Link Reconfiguration Preparation

### 8.3.2.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one Node B Communication Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.2.2 Successful Operation

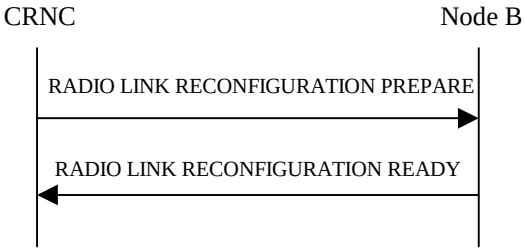



**Figure 30: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation**

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the CRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

**DCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Modify* IE then the Node B shall treat them each as follows:

- If the *DCHs To Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.

- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the UL of a DCH, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs To Modify* IE includes the *TNL QoS* IE for a DCH or a set of co-ordinated DCHs to be modified and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply in the uplink for the related DCH or set of co-ordinated DCHs.

- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the DL of a DCH, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs To Modify* IE includes the *Allocation/Retention Priority* IE for a DCH, the Node B shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the NodeB shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Downlink DCH only", the NodeB shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD – If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]

- [TDD – If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

**DCH Addition:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Add* IEs then the Node B shall treat them each as follows:

- If the *DCHs To Add* IE includes multiple *DCH Specific Info* IEs, the Node B shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

- [FDD – For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]

- For a set of co-ordinated DCHs, the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. [FDD – If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have the *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE, ref. [16].]

- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD – The Node B shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]

- [TDD – The Node B shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration.]

**DCH Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Delete* IE, the Node B shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the Node B shall not include this set of co-ordinated DCHs in the new configuration.

**Physical Channel Modification:**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the Node B shall apply the value in the new configuration. The Node B shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control when the new configuration is being used.]

- [FDD - If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuration.]

- [FDD - The Node B shall use the *TFCS* IE for the UL (if present) when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the Node B shall set the new Uplink DPCCH Structure to the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the Node B shall apply diversity according to the given value.]

- [FDD – If the *UL DPCH Information* IE includes the *UL DPDCH Indicator For E-DCH Operation* IE and it is set to "UL DPDCH not present", the UL DPDCH resources shall be removed from the configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Information* IE and the concerned Node B Communication Context is configured to use F-DPCH in the downlink in the old configuration, the Node B shall configure the concerned Node B Communication Context to use DPCH in the downlink in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE, the Node B shall use the information contained in it for the power settings of the DL DPCH. In particular, if the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE, the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - The Node B shall use the *TFCS* IE for the DL (if it is present) when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE or the *TFCI Presence* IE, the Node B shall use the information when building TFCIs in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *DL DPCH Slot Format* IE, the Node B shall set the new Downlink DPCH Structure to the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the Node B shall apply the indicated multiplexing type in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *F-DPCH Information* IE, the Node B shall configure the concerned Node B Communication Context to use F-DPCH in the downlink in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated or once the previous Compressed Mode Configuration has been deactivated. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

**[FDD - E-DPCH Handling]:**

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DPCH Information* IE, the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *E-DPCH Information* IE includes the *Maximum Set of E-DPDCHs* IE, the Node B shall apply the contents of the Maximum Set in the new configuration.]

- [FDD - If the *E-DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuration]

- [FDD - If the *E-DPCH Information* IE includes the *E-TFCS Information* IE, the Node B shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]

- [FDD - If the *E-DPCH Information* IE includes the *E-TTI* IE, the Node B shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *E-DPCCH Power Offset* IE, the Node B shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *E-RGCH 2-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *E-RGCH 3-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *HARQ Info for E-DCH* IE, the Node B shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *HS-DSCH Configured Indicator* IE, the Node B shall use the value when the new configuration is being used.]

**[TDD – UL/DL CCTrCH Modification]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH to Modify* or *DL CCTrCH to Modify* IE, then the Node B shall treat them each as follows:]

- [TDD – If the IE includes any of the *TFCS* IE, *TFCI coding* IE or *Puncture Limit* IE, the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

- [TDD – If the IE includes any *UL DPCH To Add* IE, *UL DPCH To Add LCR* IE, *DL DPCH To Add LCR* IE, or *DL DPCH To Add* IE, the Node B shall include this DPCH in the new configuration.]

- [TDD – If the IE includes any *UL DPCH To Delete* IE or *DL DPCH To Delete* IE, the Node B shall remove this DPCH in the new configuration.]

- [TDD – If the IE includes any *UL DPCH To Modify* IE or *DL DPCH To Modify* IE and includes any of the *Repetition Period* IE, *Repetition Length* IE or *TDD DPCH Offset* IE, or the message includes UL/DL Timeslot Information and includes any of the [3.84Mcps TDD - *Midamble Shift And Burst Type* IE], [1.28Mcps TDD - *Midamble Shift LCR* IE], or *TFCI Presence* IE or the message includes UL/DL Code information and includes [3.84Mcps TDD - *TDD Channelisation Code* IE], [1.28Mcps TDD - *TDD Channelisation Code LCR* IE] , [1.28Mcps TDD - *TDD UL DPCH Time Slot Format LCR* IE or *TDD DL DPCH Time Slot Format LCR* IE], the Node B shall apply these specified information elements as the new values, otherwise the old values specified for this DPCH configuration are still applicable.]

- [1.28Mcps TDD – If the *UL CCTrCH To Modify* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control according [19] and [21] when the new configuration is being used.]

- [1.28Mcps TDD - If the *UL CCTrCH to Modify* IE includes the *TDD TPC UL Step Size* IE, the Node B shall apply this value to the uplink TPC step size in the new configuration.]

- [TDD - If the *DL CCTrCH to Modify* IE includes the *TDD TPC DL Step Size* IE, the Node B shall apply this value to the downlink TPC step size in the new configuration.]

- [1.28Mcps TDD - If the *DL DPCH To Modify Per RL* IE includes the *TDD TPC DL Step Size* IE and the *RL ID* IE in the *DL DPCH To Modify Per RL* IE is same as the *HS-PDSCH RL ID* IE , the Node B shall apply this value to the HS-SCCH TPC step size in the new configuration.]

**[TDD – UL/DL CCTrCH Addition]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Add* IE or *DL CCTrCH To Add* IE, the Node B shall include this CCTrCH in the new configuration.]

[TDD – If the *UL/DL CCTrCH To Add* IE includes any [3.84Mcps TDD - *UL/DL DPCH Information* IE] [1.28Mcps TDD - *UL/DL DPCH Information LCR* IE], the Node B shall reserve necessary resources for the new configuration of the UL/DL DPCH(s) according to the parameters given in the message.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes *TDD TPC DL Step Size* IE within a *DL CCTrCH To Add* IE, the Node B shall set the downlink TPC step size of that CCTrCH to that value, otherwise the Node B shall set the TPC step size of that CCTrCH to the same value as the lowest numbered DL CCTrCH in the current configuration.]

[1.28Mcps TDD - If the *UL CCTrCH To Add* IE includes the *TDD TPC UL Step Size* IE, the Node B shall apply the uplink TPC step size in the new configuration.]

[1.28Mcps TDD –The Node B shall use the *UL SIR Target* IE in the *UL CCTrCH To Add* IE as the UL SIR value for the inner loop power control for this CCTrCH according [19] and [21] in the new configuration.]

[1.28Mcps TDD - If the *DL DPCH To Add Per RL* IE includes the *TDD TPC DL Step Size* IE and the *RL ID* IE in the *DL DPCH To Add Per RL* IE is same as the *HS-PDSCH RL ID* IE , the Node B shall apply this value to the HS-SCCH TPC step size in the new configuration.]

**[TDD – UL/DL CCTrCH Deletion]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be deleted , the Node B shall remove this CCTrCH in the new configuration.]

**DL Power Control:**

- [FDD - If the *RL Information* IE includes the *DL Reference Power* IEs and the power balancing is active, the Node B shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported, at the CFN in the RADIO LINK RECONFIGURATION COMMIT message, according to subclause 8.3.7, using the *DL Reference Power* IE. If the CFN modulo the value of the *Adjustment Period* IE is not equal to 0, the power balancing continues with the old reference power until the end of the current adjustment period, and the updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the Node B, the Node B shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION READY message.]

**[TDD – DSCH Addition/Modification/Deletion]:**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add*, *DSCH To Modify* or *DSCH To Delete* IE, then the Node B shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD – The Node B shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH.]

**[TDD – USCH Addition/Modification/Deletion]:**

- [TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified/deleted then the Node B shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

- [TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified, if the *TNL QoS* IE is included and if ALCAP is not used, the Node B may use the *TNL QoS* IE to determine the transport bearer characteristics to apply between the Node B and the CRNC for the related USCHs.]

- [TDD – The Node B shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each USCH.]

**RL Information:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *RL Information* IE, the Node B shall treat it as follows:

- [FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

- [FDD – If the *RL Information* IE includes a *DL Code Information* IE, the Node B shall apply the values in the new configuration.]

- [FDD – If the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE in the *DL Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

- [FDD - If the *RL Information* IE includes the *Maximum DL Power* and/or the *Minimum DL Power* IEs, the Node B shall apply the values in the new configuration. During compressed mode, the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

- [3.84 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum CCTrCH DL power for the DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum CCTrCH DL power, otherwise the maximum CCTrCH DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. If no *Maximum Downlink Power* IE is included (even if *CCTrCH Maximum DL Transmission Power* IEs are included), any maximum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

- [3.84 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum CCTrCH DL power for the DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum CCTrCH DL power, otherwise the minimum CCTrCH DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. If no *Minimum Downlink Power* IE is included (even if *CCTrCH Minimum DL Transmission Power* IEs are included), any minimum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

- [3.84 Mcps TDD - If the *DL CCTrCH To Modify* IE is included and *Maximum CCTrCH DL Power to Modify* IE and/or *Minimum CCTrCH DL Power to Modify* IE are included, the Node B shall apply the values in the new configuration for this DCH type CCTrCH. If the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values for all other DCH type CCTrCHs of the radio link.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL DPCH. If no *Maximum Downlink Power* IE is included, any maximum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL DPCH. If no *Minimum Downlink Power* IE is included, any minimum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Modify* IE is included and *Maximum DL Power to Modify LCR* IE and/or *Minimum DL Power to Modify LCR* IE are included, the Node B shall apply the values in the new configuration for this timeslot, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]

- [3.84Mcps TDD – If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the determined initial CCTrCH DL power to the transmission on each DPCH of the CCTrCH when starting transmission on a new CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included with a new CCTrCH (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing CCTrCHs when starting transmission for a new CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4).]

- [3.84Mcps TDD - The initial power, maximum power, and minimum power for a DSCH type CCTrCH to be added or modified, shall be determined as follows:

  - If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.

  - If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].

- [1.28 Mcps TDD – If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot in a DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the initial DL power, otherwise the initial DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

- [1.28Mcps TDD - If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within the DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE and the *DL Time Slot ISCP Info LCR* IE are included then the Node B shall use that power for the PDSCH power, otherwise the PDSCH power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. If *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each PDSCH and on each timeslot of the CCTrCH when starting transmission on a new CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included with a new CCTrCH (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing RL/timeslots when starting transmission for a new CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL PDSCH. If no *Maximum Downlink Power* IE is included, any maximum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL PDSCH. If no *Minimum Downlink Power* IE is included, any minimum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Modify* IE is included and the *Maximum CCTrCH DL Power to Modify* IE and/or the *Minimum CCTrCH DL Power to Modify* IE are included, the Node B shall apply the values in the new configuration for this DSCH type CCTrCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]

- [FDD- If the *RL Information* IE includes the *DL DPCH Timing Adjustment* IE, the Node B shall adjust the timing of the radio link accordingly in the new configuration.]

- [1.28Mcps TDD – If the *RL Information* IE message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

**[TDD - PDSCH RL ID]:**

- [TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH RL ID* IE then in the new configuration the Node B shall use the PDSCH and/or PUSCH in this radio link.]

**Signalling bearer rearrangement:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Signalling Bearer Request Indicator* IE the Node B shall allocate a new Communication Control Port for the control of the Node B Communication Context and include the *Target Communication Control Port ID* IE in the RADIO LINK RECONFIGURATION READY message.

**HS-DSCH Setup:**

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The Node B shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD – The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD – The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

**Intra-Node B Serving HS-DSCH Radio Link Change:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- In the new configuration the Node B shall de-allocate the HS-PDSCH resources of the old Serving HS-PDSCH Radio Link and allocate the HS-PDSCH resources for the new Serving HS-PDSCH Radio Link.

- The Node B may include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message.

- [FDD – The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD – The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

**HS-DSCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE for every HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE or *T1* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated values in the new configuration for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-d PDU Size Index* IE in the *Modify Priority Queue* choice, the Node B shall delete the previous list of MAC-d PDU Size Index values for the related HSDPA Priority Queue and use the MAC-d PDU Size Index values indicated in the *MAC-d PDU Size Index* IE in the new configuration.

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE , the *ACK-NACK Repetition Factor* IE, the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated CQI Feedback Cycle k value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify* IE, the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *Measurement Power Offset* IE in the *HS-DSCH Information* IE or the *HS-DSCH Information To Modify* IE, then the Node B shall use the measurement power offset as described in [10] subclause 6A.2.]

- [TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use the indicated power offset in the new configuration.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the HS-SICH SIR Target IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this value to the SIR Target in the new configuration.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the HS-SICH TPC step size IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this value to the HS-SICH TPC step size in the new configuration.]

- [FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the Node B may modify the HS-SCCH codes corresponding to the HS-DSCH. The Node B shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the Node B may modify the HS-SCCH parameters corresponding to the HS-DSCH. The Node B shall then report the values for the parameters which are used in the new configuration specified in the [3.84Mcps TDD - *HS-SCCH Specific Information Response*] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR*] IEs in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Physical Layer Category* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this information in the new configuration and may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message.]

**HS-DSCH MAC-d Flow Addition/Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated HS-DSCH MAC-d flows. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the HS-DSCH configuration from the Node B Communication Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being added, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- The Node B may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message.

**[FDD - E-DCH Setup:]**

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message:]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B:]

  - [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message.]

  - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - For all RLs having a common generation of E-RGCH information with another RL, or are candidates for a common generation of E-RGCH information with another RL, when this Node B would contain the E-DCH serving RL, the Node B shall assign to each RL the same value for the *E-DCH RL Set ID* IE, included in the RADIO LINK RECONFIGURATION READY message, to uniquely identify these RLs as members of the same E-DCH RL Set within the Node B Communication Context.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

**[FDD – E-DCH Radio Link Handling:]**

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

- [FDD - The Node B shall setup the E-DCH resources, as requested or as configured in the Node B communication context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The Node B shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* set to "Non E-DCH".]

**[FDD - Serving E-DCH Radio Link Change:]**

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the old Serving E-DCH RL is in this Node B, the Node B shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link at the activation of the new configuration.]

- [FDD - If the new Serving E-DCH RL is in this Node B:]

  - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message.]

  - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the new serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message]

- [FDD – The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every E-DCH Radio Links in the Node B.]

**[FDD - E-DCH Modification:]**

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD - If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the Node B shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also removed.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation. ]

- [FDD - If the E-DCH serving RL is in this Node B, the Node B may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-e Reset Indicator* IE in the *E-DCH FDD Information To Modify* IE, then the Node B shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

**[FDD - E-DCH MAC-d Flow Addition/Deletion:]**

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

**[FDD - Phase Reference Handling]:**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Primary CPICH Usage For Channel Estimation* IE, the Node B shall assume that Primary CPICH usage for channel estimation has been reconfigured.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Secondary CPICH Information Change* IE, the Node B shall assume that Secondary CPICH usage for channel estimation has been reconfigured.]

**General**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address* IE and *Binding ID* IEs in the [TDD - *DSCHs To Modify*, *DSCHs To Add*, *USCHs To Modify*, *USCHs To Add*], *HS-DSCH Information*, *HS-DSCH Information To Modify*, *HS-DSCH MAC-d Flows To Add*, [FDD - *RL Specific E-DCH Information* IE] or in the *RL Specific DCH Information* IEs, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for any Transport Channel or MAC-d flow being added, or any Transport Channel or MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

If the requested modifications are allowed by the Node B and the Node B has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the CRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

The Node B shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel or MAC-d flow being added or any Transport Channel or MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iub interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the DCH in the set of co-ordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the Node B, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the combined Radio Links.

### 8.3.2.3 Unsuccessful Operation

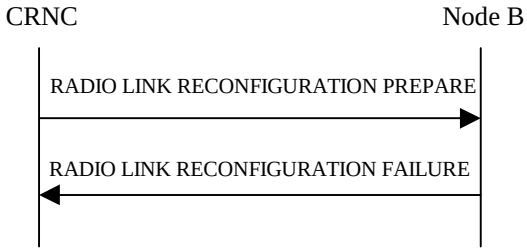



**Figure 31: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation**

If the Node B cannot reserve the necessary resources for all the new DCHs of one set of co-ordinated DCHs requested to be added, it shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs, the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

**Radio Network Layer Cause**

- UL SF not supported
- DL SF not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- Number of DL codes not supported
- Number of UL codes not supported
- RL Timing Adjustment not supported
- F-DPCH not supported.

**Transport Layer Cause**

- Transport Resources Unavailable

**Miscellaneous Cause**

- O&M Intervention
- Control processing overload
- HW failure

### 8.3.2.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IE, but the power balancing is not active in the indicated RL(s), the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the Node B shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s) but the RADIO LINK RECONFIGURATION PREPARE message IE includes more than one *DL Reference Power* IE, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the Node B shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message is to modify UE channel estimation information for an existing RL and the modification is not allowed according to [10] subclause 4.3.2.1, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE deleting the last remaining Priority Queue of an HS-DSCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[TDD - If multiple radio links exist within the Node B Communication Context and the RADIO LINK RECONFIGURATION PREPARE message does not include a *RL ID* IE within each *UL DPCH To Add Per RL* IE, *DL DPCH To Add Per RL* IE, *UL DPCH To Modify Per RL* IE, and *DL DPCH To Modify Per RL* IE that is present in the message, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-DSCH Information* IE and if the *Measurement Power Offset* IE is not present, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned the Node B Communication Context is configured to use DPCH in the downlink in the old configuration and the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE , then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink in the old configuration and the RADIO LINK RECONFIGURATION PREPARE message includes at least one but not all of the *TFCS* IE, *DL DPCH Slot Format* IE, *TFCI Signalling Mode* IE, *Multiplexing Position* IE, *Limited Power Increase* IE and *DL DPCH Power Information* IE in the *DL DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink in the old configuration, if the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Information* IE, if at least one Transmission Gap Pattern Sequence is configured with an SF/2 downlink compressed mode method in the new Compressed Mode Configuration and if the RADIO LINK RECONFIGURATION PREPARE message does not include the *Transmission Gap Pattern Sequence Code Information* IE for each DL Channelisation Code, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, but the *E-DPCH Information* IE is not present or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE, *E-TTI* IE or *E-DPCCH Power Offset* IE or *HS-DSCH Configured Indicator* IE are not present in the *E-DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Primary CPICH Usage For Channel Estimation* IE and/or *Secondary CPICH Information Change* IE and if in the new configuration Node B shall assume that the UE is not using the Primary CPICH for channel estimation nor the Secondary CPICH, Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes one of the *Not Used* IEs, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains information which would configure a HS-DSCH Radio Link, but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains information which would configure an E-DCH Radio Link, but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as 'HS-DSCH not configured' then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the Node B Communication Context is not configured for E-DCH, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

## 8.3.3 Synchronised Radio Link Reconfiguration Commit

### 8.3.3.1 General

This procedure is used to order the Node B to switch to the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

### 8.3.3.2 Successful Operation




**Figure 32:Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation**

The Node B shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure at the next coming CFN with a value equal to the value requested by the CRNC in the *CFN* IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the CRNC.

[FDD – If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the Node B.]

[FDD – If the *Active Pattern Sequence Information* IE is not included in the RADIO LINK RECONFIGURATION COMMIT message and a new Compressed Mode Configuration exists in the prepared configuration, the Node B shall behave as if an *Active Pattern Sequence Information* IE with an empty *Transmission Gap Pattern Sequence Status* IE was included.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

In the case of a transport channel modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the indicated CFN. The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1 and in [24], subclause 5.8.2.

In the case of a signalling bearer re-arrangement, the new Communication Control Port shall be used once the Node B has received the RADIO LINK RECONFIGURATION COMMIT message via the old Communication Control Port.

[FDD – If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CFN* IE. From that moment on, all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

[FDD - If the RADIO LINK RECONFIGURATION COMMIT message includes the *Active Pattern Sequence Information* IE and the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration.]

#### 8.3.3.3 Abnormal Conditions

If a new transport bearer is required for the new reconfiguration and it is not available at the requested CFN, the Node B shall initiate the Radio Link Failure procedure.

### 8.3.4 Synchronised Radio Link Reconfiguration Cancellation

#### 8.3.4.1 General

This procedure is used to order the Node B to release the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Preparation Reconfiguration procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

#### 8.3.4.2 Successful Operation




**Figure 33:Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation**

When receiving the RADIO LINK RECONFIGURATION CANCEL message from the CRNC, the Node B shall release the new configuration ([FDD - including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure and continue using the old configuration. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

#### 8.3.4.3 Abnormal Conditions

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### 8.3.5 Unsynchronised Radio Link Reconfiguration

#### 8.3.5.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a Node B.

The Unsynchronised Radio Link Reconfiguration procedure is used when there is no need to synchronise the time of the switching from the old to the new configuration in one Node B used for a UE-UTRAN connection with any other Node B also used for the UE–UTRAN connection.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.5.2 Successful Operation

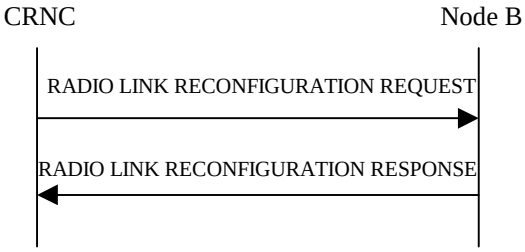



**Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation**

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the CRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

**DCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Modify* IE then the Node B shall treat them each as follows:

- If the *DCHs To Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.

- If the *DCHs To Modify* IE includes the *TNL QoS* IE for a DCH or a set of co-ordinated DCHs to be modified and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the UL, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the DL, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs To Modify* IE includes the *Allocation/Retention Priority* IE for a DCH, the Node B shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, then the Node B shall treat the DCHs in the *DCHs To Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the NodeB shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Downlink DCH only", the NodeB shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]

- [TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

**DCH Addition:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCH To Add* IE, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCHs in the new configuration. In particular:

- If a *DCHs To Add* IE includes multiple *DCH Specific Info* IEs for a DCH to be added, the Node B shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

- [FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Node B shall use the Transport channel BER from that DCHas the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]

- For a set of co-ordinated DCHs, the Node B shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" as the QE in the UL data frames [16]. [FDD – If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If all DCHs have the *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE [16].]

- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be added, the Node B shall apply the new CCTrCH ID in the downlink of this DCH in the new configuration.]

- [TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be added, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

**DCH Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the Node B shall not include this set of co-ordinated DCHs in the new configuration.

**[FDD - Physical Channel Modification]:**

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the Node B shall apply the new TFCS in the Uplink of the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD – If the *DL DPCH Information* IE includes on the *TFCS* IE for the DL, the Node B shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the Node B shall use the information when building TFCIs in the new configuration.

- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

**[FDD - E-DPCH Handling]:**

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *E-TFCS Information* IE, the Node B shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-DPCCH Power Offset* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 2-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 3-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *HARQ Info for E-DCH* IE, the Node B shall use the value when the new configuration is being used.]

**[TDD – UL/DL CCTrCH Modification]**

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE in the Radio Link(s), the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

[TDD – If the *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE includes *TFCS* IE and/or *Puncture Limit* IE, the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

[1.28Mcps TDD - If the *UL CCTrCH To Modify* IE includes *UL SIR Target* IE, the Node B shall apply this value as the new configuration and use it for the UL inner loop power control according [19] and [21].]

**[TDD – UL/DL CCTrCH Deletion]**

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Delete* IE or *DL CCTrCH To Delete* IE, the Node B shall not include this CCTrCH in the new configuration.]

**DL Power Control:**

- [FDD – If the *Radio Link Information* IE includes the *DL Reference Power* IE and the power balancing is active, the Node B shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported, using the *DL Reference Power* IE in the RADIO LINK RECONFIGURATION REQUEST message. The updated reference power shall be used from the next adjustment period.]

[FDD – If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the Node B, the Node B shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

**RL Information:**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Information* IE, the Node B shall treat it as follows:

- [FDD - If the *RL Information* IE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and not transmit with a higher power on any Downlink DPCH or on the F-DPCH of the Radio Link once the new configuration is being used. During compressed mode, the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

- [FDD - If the *RL Information* IE includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code or on the F-DPCH of the Radio Link once the new configuration is being used.]

- [3.84 Mcps TDD - If the *CCTrCH Maximum DL Transmission Power* IE and/or the *CCTrCH Minimum DL Transmission Power* IE are included, the Node B shall apply the values in the new configuration for this DCH type CCTrCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other DCH type CCTrCHs.]

- [3.84 Mcps TDD – The maximum power and minimum power for a DSCH type CCTrCH to be modified, shall be determined as follows:

  - If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum and maximum power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.

  - If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum power, however, is subject to control by the CRNC via the frame protocol].

- [1.28 Mcps TDD - If *Maximum DL Pow*er IE and/or *Minimum DL Power* IE are included within *DL Timeslot Information LCR* IE, the Node B shall apply the values in the new configuration for this timeslot within a DCH type CCTrCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]

- [1.28 Mcps TDD - If the *CCTrCH Maximum DL Transmission Power* IE and/or the *CCTrCH Minimum DL Transmission Power* IE are included, the Node B shall apply the values in the new configuration for this DSCH

type CCTrCH, if the *RL Information* IE includes the *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for other timeslots.]

- [FDD – If the concerned Node B Communication Context is configured to use DPCH in the downlink and if the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE in the *DL Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

- [1.28Mcps TDD – If the *RL Information* IE contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

**Signalling Bearer Re-arrangement:**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Signalling Bearer Request Indicator* IE, the Node B shall allocate a new Communication Control Port for the control of the Node B Communication Context and include the *Target Communication Control Port ID* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

**HS-DSCH Setup:**

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The Node B shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described

in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**Intra-Node B Serving HS-DSCH Radio Link Change:**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- The Node B shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.

- The Node B may include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message.

- [FDD – The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD – The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**HS-DSCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information To ModifyUnsynchronised* IE and if the Serving HS-DSCH Radio Link is in the Node B, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE for every HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [32].

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the Node B shall use the indicated ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To ModifyUnsynchronised* IE, the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, the Node B shall use the indicated power offset in the new configuration.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the HS-SICH SIR Target IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this value to the SIR Target in the new configuration.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the HS-SICH TPC step size IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this value to the HS-SICH TPC step size in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the Node B shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Physical Layer Category* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use this information in the new configuration and may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**HS-DSCH MAC-d Flow Addition/Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs and if the Serving HS-DSCH Radio Link is in the Node B, then the Node B shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION REQUEST message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the HS-DSCH configuration from the Node B Communication Context and release any existing HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d Flows To Add* IE and if the Serving HS-DSCH Radio Link is in the Node B, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being added, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

**[FDD - E-DCH Setup:]**

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message:]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH MAC-d Flows Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Serving E-DCH RL* IE:]

  - [FDD - the Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

  - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the initial grant for the serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - For all RLs having a common generation of E-RGCH information with another RL, or are candidates for a common generation of E-RGCH information with another RL, when this Node B would contain the E-DCH serving RL, the Node B shall assign to each RL the same value for the *E-DCH RL Set ID* IE, included in the RADIO LINK RECONFIGURATION RESPONSE message, to uniquely identify these RLs as members of the same E-DCH RL Set within the Node B Communication Context.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *HS-DSCH Configured Indicator* IE and/or the *Maximum Set of E-DPDCHs* IE, and/or the *Puncture Limit* IE and/or the *E-TTI* IE, the Node B shall use and apply the value(s) in the new configuration.]

**[FDD – E-DCH Radio Link Handling:]**

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

- [FDD - The Node B shall setup the E-DCH resources, as requested or as configured in the Node B communication context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The Node B shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* set to "Non E-DCH".]

**[FDD - Serving E-DCH Radio Link Change:]**

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the old Serving E-DCH RL is in this Node B, the Node B shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link.]

- [FDD - If the New Serving E-DCH RL is in this Node B:]

  - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

  - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the initial grant for the new serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every E-DCH Radio Links in the Node B.]

**[FDD - E-DCH Modification:]**

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD - If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the Node B shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also removed.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the E-DCH serving RL is in this Node B, the Node B may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

**[FDD - E-DCH MAC-d Flow Addition/Deletion:]**

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

**General**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IEs in the *HS-DSCH Information* IE, *HS-DSCH Information To Modify Unsynchronised* IE, *HS-DSCH MAC-d Flows To Add* IE, [FDD -*RL Specific E-DCH Information* IE] or in the *RL Specific DCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for any Transport Channel or MAC-d flow being added or any Transport Channel or MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

If the requested modifications are allowed by the Node B, the Node B has successfully allocated the required resources, and changed to the new configuration, it shall respond to the CRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

The Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel or MAC-d flow being added or any Transport Channel or MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1.

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iub interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the DCH in the set of coordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the Node B, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the combined Radio Links.

In the case of a signalling bearer re-arrangement, the new Communication Control Port shall be used once the Node B has sent the RADIO LINK RECONFIGURATION RESPONSE message via the old Communication Control Port.

### 8.3.5.3 Unsuccessful Operation

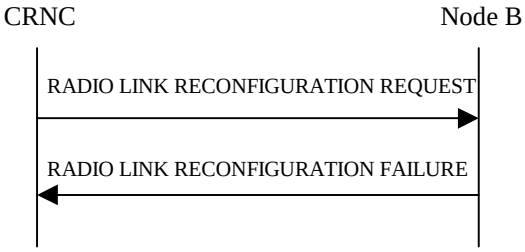



**Figure 35: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation**

If the Node B cannot allocate the necessary resources for all the new DCHs of one set of co-ordinated DCHs requested to be set-up, it shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s), the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

**Radio Network Layer Cause**

- CM not supported

**Transport Layer Cause**

- Transport Resources Unavailable

**Miscellaneous Cause**

- O&M Intervention
- Control processing overload
- HW failure

### 8.3.5.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

[FDD – If the concerned Node B Communication Context is configured to use DPCH in the downlink and if the *RL Information* IE contains the *DL Code Information* IE and this IE includes *DL Scrambling Code* and *FDD DL Channelisation Code Number* IEs not matching the DL Channelisation code(s) already allocated to the Radio Link identified by *RL ID* IE, then the Node B shall consider the Unsynchronised Radio Link Reconfiguration procedure as having failed and it shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Unsynchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IEs, but the power balancing is not active in the indicated RL(s), the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the Node B shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s) but the *RL Information* IE includes more than one *DL Reference Power* IEs, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the Node B shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-DSCH Information* IE and if the *Measurement Power Offset* IE is not present, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION REQUEST message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the concerned Node B Communication Context is configured to use F-DPCH in the downlink and if the *RL Information* IE contains the *DL Code Information* IE, then the Node B shall consider the Unsynchronised Radio Link Reconfiguration procedure as having failed and it shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, but the *E-DPCH Information* IE is not present, or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE, *E-TTI* IE, *E-DPCCH Power Offset* IE, *HS-DSCH Configured Indicator* IE, are not present in the *E-DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If any the *HS-DSCH Configured Indicator* IE, of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE or *E-TTI* IE are present in the *E-DPCH Information* IE and the *E-DCH FDD Information* IE is not present in the RADIO LINK RECONFIGURATION REQUEST message, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes one of the *Not Used* IEs, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains information which would configure a HS-DSCH Radio Link, but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains information which would configure an E-DCH Radio Link, but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as 'HS-DSCH not configured' then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the Node B Communication Context is not configured for E-DCH, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

## 8.3.6 Radio Link Deletion

### 8.3.6.1 General

The Radio Link Deletion procedure is used to release the resources in a Node B for one or more established radio links towards a UE.

The Radio Link Deletion procedure may be initiated by the CRNC at any time when the Node B Communication Context exists.

### 8.3.6.2 Successful Operation

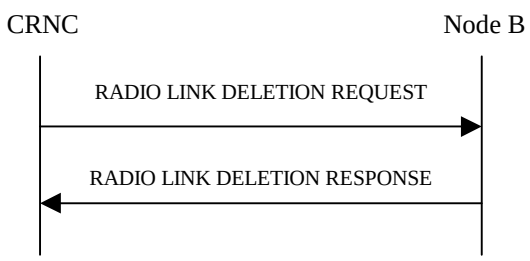



**Figure 36: Radio Link Deletion procedure, Successful Operation**

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon receipt of this message, the Node B shall delete the radio link(s) identified by the *RL ID* IE, *Node B Communication Context ID* IE and *CRNC Communication Context ID* IE and release all associated resources and respond to the CRNC with a RADIO LINK DELETION RESPONSE message.

[FDD – After deletion of the RL(s), the UL out-of-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set and the UL in-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

#### 8.3.6.3 Unsuccessful Operation

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#### 8.3.6.4 Abnormal Conditions

If the RL indicated by the *RL ID* IE, *Node B Communication Context ID* IE *and CRNC Communication Context ID* IE does not exist, the Node B shall respond with the RADIO LINK DELETION RESPONSE message and use the *CRNC Communication Context ID* IE received in the RADIO LINK DELETION REQUEST message.

### 8.3.7 Downlink Power Control [FDD]

#### 8.3.7.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more Radio Links used for the related UE-UTRAN connection within the Node B. The Downlink Power Control procedure may be initiated by the CRNC at any time when the Node B Communication Context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B Communication Context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Control procedure shall no longer be initiated.

#### 8.3.7.2 Successful Operation




**Figure 37: Downlink Power Control procedure, Successful Operation**

The procedure is initiated by the CRNC sending a DL POWER CONTROL REQUEST message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

The *Power Adjustment Type* IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Common". As long as the Power Balancing Adjustment Type of the Node B Communication Context is set to "Common", the Node B shall perform the power adjustment (see below) for all existing and future radio links associated with the context identified by the *Node B Communication Context ID* IE and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Individual". The Node B shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Powers per RL. If the Power Balancing Adjustment Type of the Node B Communication Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in

accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "None" and the Node B shall suspend on going power adjustments for all radio links for the Node B Communication Context.

If the *Inner Loop DL PC Status* IE is present and set to "Active", the Node B shall activate inner loop DL power control for all radio links for the Node B Communication Context. If the *Inner Loop DL PC Status* IE is present and set to "Inactive", the Node B shall deactivate inner loop DL power control for all radio links for the Node B Communication Context according to ref. [10].

**Power Adjustment**

The power balancing adjustment shall be superimposed on the inner loop power control adjustment (see ref. [10]) if activated. The power balancing adjustment shall be such that:

$\sum P_{bal} = (1-r)(P_{ref} + P_{P-CPICH} - P_{init})$ with an accuracy of ±0.5 dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, $P_{ref}$ is the value of the *DL Reference Power* IE, $P_{P\text{-}CPICH}$ is the power used on the primary CPICH, $P_{init}$ is the code power of the last slot of the previous adjustment period and $r$ is given by the *Adjustment Ratio* IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, $P_{init}$ shall be set to the same value as the code power of the slot just before the transmission gap.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE and the DL TX power range set by the CRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

#### 8.3.7.3 Abnormal Conditions

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## 8.3.8 Dedicated Measurement Initiation

### 8.3.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on dedicated resources in a Node B.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1 except when the *Node B Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message is set to the reserved value "All NBCC".

If the *Node B Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message is set to the reserved value "All NBCC", the Dedicated Measurement Initiation procedure may be initiated by the CRNC at any time when the Node B Communication Context exists.

### 8.3.8.2 Successful Operation

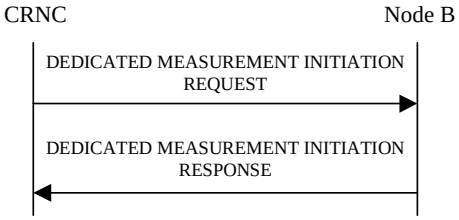



**Figure 38: Dedicated Measurement Initiation procedure, Successful Operation**

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the DEDICATED MEASUREMENT INITIATION REQUEST message. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on "All NBCC".

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement shall be initiated only for those Node B Communication Contexts handling a mode (FDD, 3.84Mcps TDD or 1.28Mcps TDD) for which the concerned measurement is specified in [4] and [5]. The initiation of the measurement for a Node B Communication Context may be delayed until the Reconfiguration CFN has elapsed if either a Prepared Reconfiguration exists or a Prepared Reconfiguration no longer exists but the Reconfiguration CFN has not yet elapsed.

If the Dedicated Measurement Object Type is indicated as being "RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all indicated Radio Links.

[FDD – If the Dedicated Measurement Object Type is indicated as being "RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all indicated Radio Link Sets.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the Node B Communication Context.]

[TDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the Node B Communication Context, provided the measurement type is applicable to the respective DPCH.]

[FDD – If the Dedicated Measurement Object Type is indicated as being "ALL RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all existing and future Radio Link Sets within the Node B Communication Context.]

[TDD – If the *DPCH ID* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE, *HS-SICH ID* IE and no *PUSCH Information* IE is provided within the RL Information, the measurement request shall apply for one existing physical channel per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this physical channel.]

[TDD – If the *PUSCH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD – If the *HS-SICH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD - If the *Dedicated Measurement Type* IE is set to "HS-SICH reception quality ", the Node B shall initiate measurements of the failed, missed and total HS-SICH transmissions on all of the HS-SICH assigned to this Node B Communication Context. If either the failed or missed HS-SICH transmission satisfies the requested report characteristics, the Node B shall report the result of both failed and missed transmission measurements along with the total number of transmissions.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT INITIATION RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

[FDD – If the *Number Of Reported Cell Portions* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the value shall be used to determine how many *Cell Portion ID* IEs and *SIR Value* IEs shall be included in *Best Cell Portions* IE in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT INITIATION RESPONSE message.]

**Report characteristics**
The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the Node B shall return the result of the measurement immediately. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate the Dedicated Measurement Report procedure for this measurement, with the requested report frequency. If the *CFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the

Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

**Higher layer filtering**
The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

$F_n$ is the updated filtered measurement result

$F_{n-1}$ is the old filtered measurement result

$M_n$ is the latest received measurement result from physical layer measurements, the unit used for $M_n$ is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn)

$a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering)

In order to initialise the averaging filter, $F_0$ is set to $M_1$ when the first measurement result from the physical layer measurement is received.

**Measurement Recovery Behavior:**

If the *Measurement Recovery Behavior* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.3.9.2.

**Response message**
If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the measurement request. The DEDICATED MEASUREMENT INITIATION RESPONSE message shall be sent even if the initiation is delayed for some Node B Communication Contexts due to an existing Prepared Reconfiguration or that the Reconfiguration CFN has not yet elapsed.

Only in the case where the *Report Characteristics* IE is set to "On Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the *Dedicated Measurement Object Type* IE containing the measurement result. [TDD – In the case that the measurement was performed on a particular HS-SICH, the Node B shall include the *HS-SICH ID* IE that indicates which HS-SICH was measured.]

In the case where the *Node B Communication Context ID* IE is set to "All NBCC", the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE shall be set to the value "All CRNCCC", which is reserved for this purpose.

**Interaction with Reset Procedure:**

If a measurement has been requested with the *Node B Communication Context ID* IE set to "All NBCC", the Node B shall terminate the measurement locally if either the CRNC or the Node B initiates the Reset procedure for the relevant Communication Control Port or the entire Node B.

### 8.3.8.3 Unsuccessful Operation

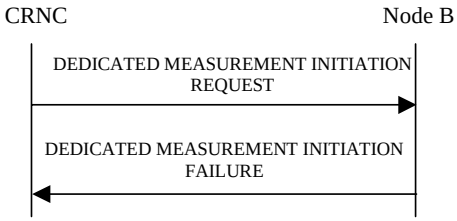



**Figure 39: Dedicated Measurement Initiation procedure: Unsuccessful Operation**

If the requested measurement cannot be initiated, the Node B shall send a DEDICATED MEASUREMENT INITIATION FAILURE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

In the case where the *Node B Communication Context ID* IE is set to "All NBCC" the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION FAILURE shall be set to the value "All CRNCCC", which is reserved for this purpose.

Typical cause values are as follows:

**Radio Network Layer cause**

- Measurement not supported for the object
- Measurement Temporarily not Available

**Miscellaneous Cause**

- O&M Intervention
- Control processing overload
- HW failure

### 8.3.8.4 Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

**Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations**

| Dedicated Measurement Type | Report Characteristics Type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| SIR | X | X | X | X | X | X | X | X | |
| SIR Error | X | X | X | X | X | X | X | X | |
| Transmitted Code Power | X | X | X | X | X | X | X | X | |
| RSCP | X | X | X | X | X | X | X | X | |
| Rx Timing Deviation | X | X | X | X | | | X | X | |
| Round Trip Time | X | X | X | X | X | X | X | X | |
| Rx Timing Deviation LCR | X | X | X | X | | | X | X | |
| HS-SICH reception quality | X | X | X | X | | | X | X | |
| Best Cell Portions | X | X | | | | | | | |
| Angle Of Arrival LCR | X | X | | | | | | | |

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [4] or [5] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

## 8.3.9 Dedicated Measurement Reporting

### 8.3.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Dedicated Measurement Initiation procedure. The Node B may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link, as long as the Node B Communication Context exists.

### 8.3.9.2 Successful Operation




**Figure 40: Dedicated Measurement Reporting procedure, Successful Operation**

If the requested measurement reporting criteria are met, the Node B shall initiate the Dedicated Measurement Reporting procedure. The DEDICATED MEASUREMENT REPORT message shall use the Communication Control Port assigned to the Node B Communication Context. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the Node B may include measurement values for multiple objects in the DEDICATED MEASUREMENT REPORT message. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by the CRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

[TDD – In the case that the measurement was performed on a particular HS-SICH, the Node B shall include the *HS-SICH ID* IE that indicates which HS-SICH was measured.]

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the Measurement not available shall be reported. If the Node B was configured to perform the Measurement Recovery Behavior, the Node B shall indicate Measurement Available to the CRNC when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [22] and [23]) and include the *Measurement Recovery Report Indicator* IE in the DEDICATED MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

#### 8.3.9.3 Abnormal Conditions

-

### 8.3.10 Dedicated Measurement Termination

#### 8.3.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

The Dedicated Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1 except if the measurement was initiated by the Dedicated Measurement Initiation procedure using the reserved value "All NBCC".

If the measurement was initiated by the Dedicated Measurement Initiation procedure using the reserved value "All NBCC", the Dedicated Measurement Termination procedure may be initiated by the CRNC at any time.

#### 8.3.10.2 Successful Operation




**Figure 41: Dedicated Measurement Termination procedure, Successful Operation**

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall terminate reporting of dedicated measurements corresponding to the received *Measurement ID* IE.

#### 8.3.10.3 Abnormal Conditions

-

### 8.3.11 Dedicated Measurement Failure

#### 8.3.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. The Node B is allowed to initiate the DEDICATED MEASUREMENT FAILURE INDICATION message at any time after having sent the RADIO LINK SETUP RESPONSE message, as long as the Node B Communication Context exists.

### 8.3.11.2 Successful Operation




**Figure 42: Dedicated Measurement Failure procedure, Successful Operation**

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Communication Control Port assigned to the Node B Communication Context, to inform the CRNC that a previously requested measurement can no longer be reported. The Node B has locally terminated the indicated measurement.

If the failed measurement was initiated with the *Node B Communication Context ID* IE set to the reserved value "All NBCC" and the Node B has terminated the measurement reporting of the measurement corresponding to the Measurement ID indicated in the DEDICATED MEASUREMENT FAILURE INDICATION message, the *CRNC Communication Context ID* IE shall be set to the value "All CRNCCC".

### 8.3.11.3 Abnormal Conditions

-

## 8.3.12 Radio Link Failure

### 8.3.12.1 General

This procedure is used by the Node B to indicate a failure in one or more Radio Links [FDD - or Radio Link Sets][TDD or CCTrCHs within a Radio Link].

The Node B may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

### 8.3.12.2 Successful Operation




**Figure 43: Radio Link Failure procedure, Successful Operation**

When the Node B detects that one or more Radio Link(s) [FDD - or Radio Link Set(s)] [TDD – or CCTrCHs within a Radio Link] are no longer available, it sends the RADIO LINK FAILURE INDICATION message to the CRNC indicating the failed Radio Link(s) or Radio Link Set(s) or CCTrCHs with the most appropriate cause values in the *Cause* IE. The message shall use the Communication Control Port assigned to the concerned Node B Communication Context.

If the failure concerns one or more individual Radio Link(s), the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE. [FDD - If the failure concerns one or more Radio Link Set(s), the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE.] [TDD – If the failure concerns only the failure of one or more CCTrCHs within a radio link, the Node B shall indicate the affected CCTrCHs using the *CCTrCH ID* IE.]

When the Radio Link Failure procedure is used to notify the loss of UL synchronisation of a [FDD – Radio Link Set] [TDD – Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the RADIO LINK FAILURE

INDICATION message shall be sent, with the *Cause* IE set to "Synchronisation Failure", when indicated by the UL out-of-sync algorithm defined in [10] and [21]. [FDD – The algorithms in [10] shall use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD – When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Link(s) / Radio Link Set(s) due to the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the cause value "Invalid CM Settings". After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link(s)/Radio Link Set(s) from the Node B Communication Context or the Node B Communication Context itself.]

[FDD – When the Radio Link Failure Procedure is used to indicate E-DCH non serving cell processing issue, the RADIO LINK FAILURE INDICATION shall be sent, with the *Cause* IE set to "Not enough user plane processing resources".]

In the other cases, the Radio Link Failure procedure is used to indicate that one or more Radio Link(s)/Radio Link Set(s) are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link/Radio Link Set from the Node B Communication Context or the Node B Communication Context itself. When applicable, the retention priorities associated with the transport channels shall be used by the Node B to prioritise which Radio Link(s)/Radio Link Set(s) to indicate as unavailable to the CRNC.

Typical cause values are:

**Radio Network Layer Causes:**

- Synchronisation Failure
- Invalid CM settings

**Transport Layer Causes:**

- Transport Resources Unavailable

**Miscellaneous Causes:**

- Control Processing Overload
- HW Failure
- O&M Intervention
- Not enough user plane processing resources

#### 8.3.12.3 Abnormal Conditions

-

### 8.3.13 Radio Link Restoration

#### 8.3.13.1 General

This procedure is used by the Node B to notify the achievement and re-achievement of uplink synchronisation of one or more [FDD - Radio Link Sets][TDD – Radio Links or CCTrCHs within a Radio Link] on the Uu interface.

The Node B may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

### 8.3.13.2 Successful Operation

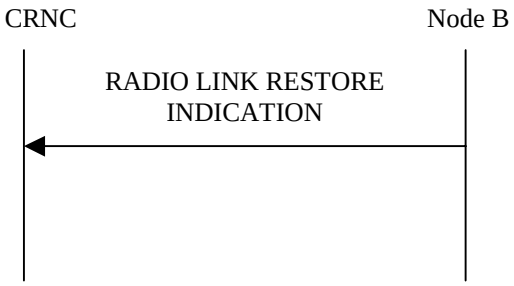



**Figure 44: Radio Link Restoration procedure, Successful Operation**

The Node B shall send the RADIO LINK RESTORE INDICATION message to the CRNC when indicated by the UL synchronisation detection algorithm defined in ref. [10] and [21]. [FDD – The algorithm in ref. [10] shall use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.] The message shall use the Communication Control Port assigned to the concerned Node B Communication Context.

[TDD – If the re-established Uu synchronisation concerns one or more individual Radio Links, the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE.] [TDD – If the re-established Uu synchronisation concerns one or more individual CCTrCHs within a radio link, the Node B shall indicate the affected CCTrCHs using the *CCTrCH ID* IE.] [FDD – If the re-established Uu synchronisation concerns one or more Radio Link Set(s), the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE.]

[FDD – The Node B shall send the RADIO LINK RESTORE INDICATION message when the E-DCH processing issue condition has ceased.]

### 8.3.13.3 Abnormal Condition

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## 8.3.14 Compressed Mode Command [FDD]

### 8.3.14.1 General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the Node B for one Node B Communication Context.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.14.2 Successful Operation




**Figure 47: Compressed Mode Command procedure, Successful Operation**

The procedure is initiated by the CRNC sending a COMPRESSED MODE COMMAND message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

The Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CM Configuration Change CFN* IE requested by the CRNC when receiving the COMPRESSED MODE COMMAND message from the CRNC. From that moment on, all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions (if present) shall be started when the indicated *TGCFN* IE elapses. The *CM Configuration Change CFN*

IE in the *Active Pattern Sequence Information* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value.

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

If the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration.

#### 8.3.14.3 Abnormal Conditions

-

### 8.3.15 Downlink Power Timeslot Control [TDD]

#### 8.3.15.1 General

The purpose of this procedure is to enable the Node B to use the indicated DL Timeslot ISCP values when deciding the DL TX Power for each timeslot.

The Downlink Power Timeslot Control procedure can be initiated by the CRNC at any time when the Node B Communication Context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B Communication Context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Timeslot Control procedure shall no longer be initiated.

#### 8.3.15.2 Successful Operation




**Figure 47A: Downlink Power Timeslot Control procedure, Successful Operation**

The procedure is initiated by the CRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall use the indicated DL Timeslot ISCP value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.

If the *Primary CCPCH RSCP Delta* IE is included, the NodeB shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [23], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the Node B shall assume that the reported value is in the non-negative range as per [23], and the value is equal to the *Primary CCPCH RSCP* IE. The Node B should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

#### 8.3.15.3 Abnormal Conditions

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## 8.3.16 Radio Link Pre-emption

### 8.3.16.1 General

This procedure is started by the Node B when resources need to be freed.

The Node B may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

### 8.3.16.2 Successful Operation

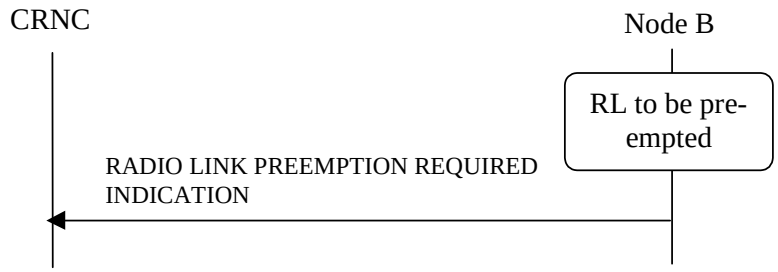



**Figure 47B: Radio Link Pre-emption procedure, Successful Operation**

When the Node B detects that a one or more Radio Links should be pre-empted (see Annex A), it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the CRNC using the Communication Control Port assigned to the concerned Node B Communication Context.

If all Radio Links for a CRNC Communication Context ID should be pre-empted, the *RL Information* IE shall be omitted. If one or several but not all Radio Links should be pre-empted for a CRNC Communication Context, the Radio Links that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted should be deleted by the CRNC.

### 8.3.16.3 Abnormal Conditions

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## 8.3.17 Bearer Re-arrangement

### 8.3.17.1 General

This procedure is started by the Node B when Bearers for the Node B Communication Context need to be rearranged.

The Node B may initiate the Bearer Rearrangement procedure at any time after establishing a Radio Link.

### 8.3.17.2 Successful Operation

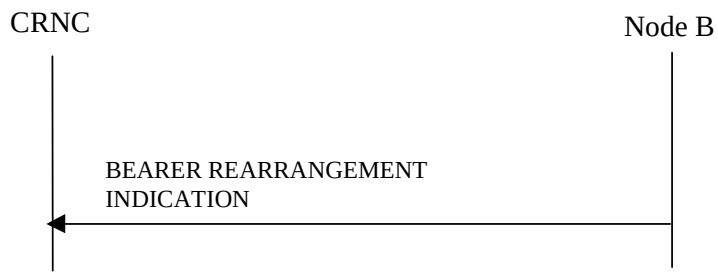



**Figure 47C: Bearer Re-arrangement Indication, Successful Operation**

When the Node B detects that a signaling bearer or a transport bearer or both need to be re-arranged for the Node B Communication Context, it shall send the BEARER REARRANGEMENT INDICATION message to the CRNC. The message shall use the Communication Control Port assigned for this Node B Communication Context.

If the signaling bearer for the control of the Node B Communication Context needs to be rearranged, the *Signalling Bearer Requested Indicator* IE shall be included in the BEARER REARRANGEMENT INDICATION message.

If the transport bearer for a transport channel needs to be rearranged, the ID of the transport channel for which a new transport bearer is required, shall be included in the BEARER REARRANGEMENT INDICATION message.

#### 8.3.17.3 Abnormal Conditions

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## 8.3.18 Radio Link Activation

### 8.3.18.1 General

This procedure is used to activate or de-activate the DL transmission on the Uu interface regarding selected RLs.

### 8.3.18.2 Successful Operation




**Figure 47D: Radio Link Activation procedure**

This procedure is initiated by sending the RADIO LINK ACTIVATION COMMAND message from the CRNC to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context. Upon reception, the Node B shall for each concerned RL:

- if the *Delayed Activation Update* IE indicates "Activate":
  - if the *Activation Type* IE equals "Unsynchronised":
    - [FDD - start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16].]
    - [TDD - start transmission on the new RL immediately as specified in [16].]
  - if the *Activation Type* IE equals "Synchronised":
    - [FDD - start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
    - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]
  - [FDD - the Node B shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH or on the F-DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see subclause 8.3.7).]

- [TDD - the Node B shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

- [FDD - if the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of UL synchronisation on the Uu interface.]

- [FDD - if the *First RLS Indicator* IE is included, it indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC Pattern 01 Count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

- if the *Delayed Activation Update* IE indicates "Deactivate":

  - stop DL transmission immediately, if the *Deactivation Type* IE equals "Unsynchronised", or at the CFN indicated by the *Deactivation CFN* IE, if the *Deactivation Type* IE equals "Synchronised".

### 8.3.18.3 Abnormal Conditions

[FDD- If the *Delayed Activation Update* IE is included in the RADIO LINK ACTIVATION COMMAND message, it indicates "Activate" and the *First RLS Indicator* IE is not included, the Node B shall initiate the Error Indication procedure.]

## 8.3.19 Radio Link Parameter Update

### 8.3.19.1 General

The Radio Link Parameter Update procedure is excuted by the Node B when the update of HS-DSCH [FDD - or E-DCH] related radio link parameter values are needed on the Node B side. With this procedure, Node B can suggest some HS-DSCH [FDD - or E-DCH] related Radio Link Parameter values to RNC.

The Radio Link Parameter Update procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.19.2 Successful Operation

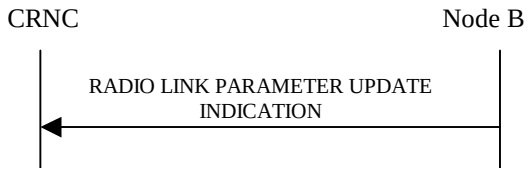



**Figure 48: Radio Link Parameter Update Indication, Successful Operartion**

The Node B initiates the Radio Link Parameter Update procedure by sending the RADIO LINK PARAMETER UPDATE INDICATION message to the CRNC. The message contains suggested value(s) of the HS-DSCH [FDD - or E-DCH] related parameter(s) that should be reconfigured on the radio link(s).

If the Node B needs to update HS-DSCH related parameters, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including [FDD - *HS-DSCH FDD Update Information* IE] [TDD - *HS-DSCH TDD Update Information* IE].

If the Node B needs to allocate new HS-SCCH Codes, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-SCCH Code Change Indicator* IE.

[FDD - If the Node B needs to update the CQI Feedback Cycle k, CQI Repetition Factor, ACK-NACK Repetition Factor, CQI Power Offset, ACK Power Offset and/or NACK Power Offset, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *CQI Feedback Cycle k* IE, *CQI Repetition Factor* IE, *ACK-NACK Repetition Factor* IE, *CQI Power Offset* IE, *ACK Power Offset* IE and/or *NACK Power Offset* IE.]

[TDD - If the Node B needs to update the TDD ACK-NACK Power Offset the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *TDD ACK-NACK Power Offset* IE.]

[FDD - If the Node B needs to update E-DCH related parameters, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *E-DCH FDD Update Information* IE.]

[FDD - If the Node B needs to update the HARQ process allocation for non-scheduled transmission and/or HARQ process allocation for scheduled Transmission, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *HARQ Process Allocation For 2ms Non-Scheduled Transmission* Grant IE for the concerned MAC-d Flows and/or *HARQ Process Allocation For 2ms Scheduled Transmission* Grant IE.]

#### 8.3.19.3 Abnormal Conditions

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## 8.4 Error Handling Procedures

### 8.4.1 Error Indication

#### 8.4.1.1 General

The Error Indication procedure is initiated by a node in order to report detected errors in one incoming message, provided they cannot be reported by an appropriate response message.

#### 8.4.1.2 Successful Operation

When the conditions defined in subclause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node.

In case the Error Indication procedure was triggered by a dedicated procedure, the following applies:

- When the ERROR INDICATION message is sent from a Node B to its CRNC, the *CRNC Communication Context ID* IE shall be included in the message if the corresponding Node B Communication Context, addressed by the *Node B Communication Context ID* IE which was received in the message triggering the Error Indication procedure, exists;

- When the ERROR INDICATION message is sent from a CRNC to a Node B, the *Node B Communication Context ID* IE shall be included in the message if the corresponding CRNC Communication Context, addressed by the *CRNC Communication Context ID* IE which was received in the message triggering the Error Indication procedure, exists;

- When the message triggering the Error Indication procedure is received in the Node B and there is no Node B Communication Context as indicated by the *Node B Communication Context ID* IE, the Node B shall include the unknown *Node B Communication Context ID* IE from the received message in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

- When the message triggering the Error Indication procedure is received in the CRNC and there is no CRNC Communication Context as indicated by the *CRNC Communication Context ID* IE, the CRNC shall include the unknown *CRNC Communication Context ID* IE from the received message in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause* IE, or the *Criticality Diagnostics* IE or both the *Cause* IE and the *Criticality Diagnostics* IE.

Typical cause values for the ERROR INDICATION message are:

**Protocol Causes:**

- Transfer Syntax Error
- Abstract Syntax Error (Reject)
- Abstract Syntax Error (Ignore and Notify)
- Message not Compatible with Receiver State
- Unspecified

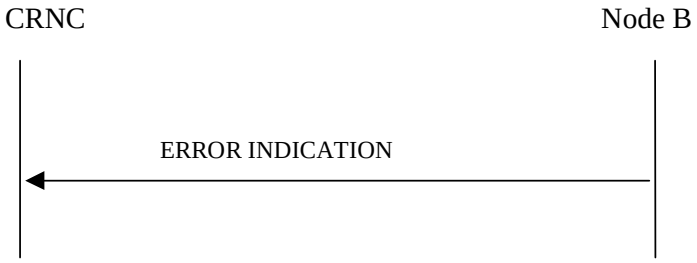



**Figure 49: Error Indication procedure (Node B to CRNC): Successful Operation**

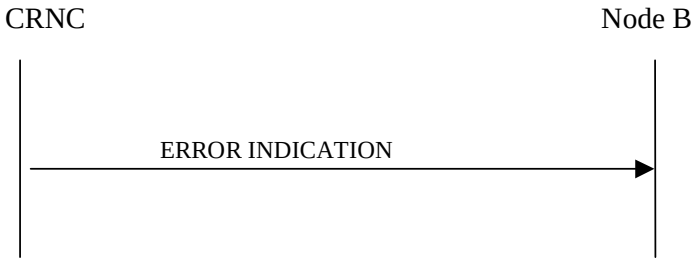



**Figure 50: Error Indication procedure (CRNC to Node B), Successful Operation**

#### 8.4.1.3 Abnormal Conditions

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# 9 Elements for NBAP communication

## 9.1 Message Functional Definition and Contents

### 9.1.1 General

Subclause 9.1 presents the contents of NBAP messages in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, where the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in ref. [26].

## 9.1.2 Message Contents

### 9.1.2.1 Presence

An information element can be of the following types:

| | |
|---|---|
| **M** | IEs marked as Mandatory (M) shall always be included in the message. |
| **O** | IEs marked as Optional (O) may or may not be included in the message. |
| **C** | IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied. Otherwise the IE shall not be included. |

In case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

### 9.1.2.2 Criticality

Each Information Element or Group of Information Elements may have a criticality information applied to it. Following cases are possible:

| | |
|---|---|
| **–** | No criticality information is applied explicitly. |
| **YES** | Criticality information is applied. "YES" is usable only for non-repeatable information elements. |
| **GLOBAL** | The information element and all its repetitions together have one common criticality information. "GLOBAL" is usable only for repeatable information elements. |
| **EACH** | Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. "EACH" is usable only for repeatable information elements. |

### 9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs.

### 9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

## 9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

### 9.1.3.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| CHOICE *Common Physical Channel To Be Configured* | M | | | | YES | ignore |
| *>Secondary CCPCH* | | | | | – | |
| **>>Secondary CCPCH** | | *1* | | | – | |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>FDD SCCPCH Offset | M | | 9.2.2.15 | Corresponds to [7]: $S\text{-}CCPCH,k$ | – | |
| >>>DL Scrambling Code | C-PCH | | 9.2.2.13 | | – | |
| >>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>TFCS | M | | 9.2.1.58 | For the DL. | – | |
| >>>Secondary CCPCH Slot Format | M | | 9.2.2.43 | | – | |
| >>>TFCI Presence | C-SlotFormat | | 9.2.1.57 | Refer to TS [7] | – | |
| >>>Multiplexing Position | M | | 9.2.2.23 | | – | |
| **>>>Power Offset Information** | | *1* | | | – | |
| >>>>PO1 | M | | Power Offset 9.2.2.29 | Power offset for the TFCI bits | – | |
| >>>>PO3 | M | | Power Offset 9.2.2.29 | Power offset for the pilot bits | – | |
| >>>STTD Indicator | M | | 9.2.2.48 | | – | |
| **>>>FACH Parameters** | | *0..<maxnoofFACHs>* | | | GLOBAL | reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format Set | M | | 9.2.1.59 | For the DL. | – | |
| >>>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>>ToAWE | M | | 9.2.1.60 | | – | |
| >>>>Max FACH Power | M | | DL Power 9.2.1.21 | Maximum allowed power on the FACH. | – | |
| >>>>Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >>>>Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | bearer establishment with ALCAP. | | |
| **>>>PCH Parameters** | | *0..1* | | | YES | reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format Set | M | | 9.2.1.59 | For the DL. | – | |
| >>>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>>ToAWE | M | | 9.2.1.60 | | – | |
| >>>>PCH Power | M | | DL Power 9.2.1.21 | | – | |
| **>>>>PICH Parameters** | | *1* | | | – | |
| >>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>>PICH Power | M | | 9.2.1.49A | | – | |
| >>>>>PICH Mode | M | | 9.2.2.26 | Number of PI per frame | – | |
| >>>>>STTD Indicator | M | | 9.2.2.48 | | – | |
| >>>>Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >>>>Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| **>>>MICH Parameters** | | *0..1* | | | YES | reject |
| >>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>MICH Power | M | | PICH Power 9.2.1.49A | | – | |
| >>>>MICH Mode | M | | 9.2.2.21D | Number of NI per frame | – | |
| >>>>STTD Indicator | M | | 9.2.2.48 | | – | |
| >>>FDD S-CCPCH Frame Offset | O | | 9.2.2.14B | | YES | reject |
| *>PRACH* | | | | | – | |
| **>>PRACH** | | *1* | | | – | |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>Scrambling Code Number | M | | 9.2.2.42 | | – | |
| >>>TFCS | M | | 9.2.1.58 | For the UL. | – | |
| >>>Preamble Signatures | M | | 9.2.2.31 | | – | |
| **>>>Allowed Slot** | | *1..<maxno* | | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Format Information** | | *ofSlotFormatsPRACH>* | | | | |
| >>>>RACH Slot Format | M | | 9.2.2.37 | | – | |
| >>>RACH Sub Channel Numbers | M | | 9.2.2.38 | | – | |
| >>>Puncture Limit | M | | 9.2.1.50 | For the UL | – | |
| >>>Preamble Threshold | M | | 9.2.2.32 | | – | |
| **>>>RACH Parameters** | | *1* | | | YES | reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format Set | M | | 9.2.1.59 | For the UL. | – | |
| >>>>Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >>>>Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| **>>>AICH Parameters** | | *1* | | | – | |
| >>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>AICH Transmission Timing | M | | 9.2.2.1 | | – | |
| >>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>AICH Power | M | | 9.2.2.D | | – | |
| >>>>STTD Indicator | M | | 9.2.2.48 | | – | |
| *>Not Used* | | | NULL | This choice shall not be used. Reject procedure if received. | – | |

| Condition | Explanation |
|---|---|
| SlotFormat | The IE shall be present if the *Secondary CCPCH Slot Format* IE is set to any of the values from 8 to 17. |
| PCH | The IE shall be present if the *PCH Parameters* IE is not present. |

| Range Bound | Explanation |
|---|---|
| *maxnoofFACHs* | Maximum number of FACHs that can be defined on a Secondary CCPCH |
| *maxnoofLen* | Maximum number of Min UL Channelisation Code Length |
| *maxnoofSlotFormatsPRACH* | Maximum number of SF for a PRACH |

### 9.1.3.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| CHOICE *Common Physical Channel To Be Configured* | M | | | | YES | ignore |
| *>Secondary CCPCHs* | | | | | – | |
| >>SCCPCH CCTrCH ID | M | | CCTrCH ID 9.2.3.3 | For DL CCTrCH supporting one or several Secondary CCPCHs | – | |
| >>TFCS | M | | 9.2.1.58 | For DL CCTrCH supporting one or several Secondary CCPCHs | – | |
| >>TFCI Coding | M | | 9.2.3.22 | | – | |
| >>Puncture Limit | M | | 9.2.1.50 | | – | |
| >>CHOICE *HCR or LCR* | M | | | See note 1 below | – | |
| *>>>3.84Mcps TDD* | | | | | – | |
| **>>>>Secondary CCPCH** | | *1..<maxnoofSCCPCHs>* | | See note 2 below | GLOBAL | reject |
| >>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| >>>>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>>>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| >>>>>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| >>>>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>>>SCCPCH Power | M | | DL Power 9.2.1.21 | | – | |
| >>>>>TFCI Presence | O | | 9.2.1.57 | | YES | notify |
| *>>>1.28Mcps TDD* | | | | | – | |
| **>>>>Secondary CCPCH LCR** | | *1..<maxnoofSCCPCHsLCR>* | | See note 2 below | GLOBAL | reject |
| >>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>>TDD Channelisation Code | M | | 9.2.3.19a | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LCR | | | | | | |
| >>>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>>>>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| >>>>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>>>SCCPCH Power | M | | DL Power 9.2.1.21 | | – | |
| >>>>> SCCPCH Time Slot Format LCR | M | | TDD DL DPCH Time Slot Format LCR 9.2.3.19D | | – | |
| **>>FACH Parameters** | | *0..<maxnoofFACHs>* | | | GLOBAL | reject |
| >>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>FACH CCTrCH ID | M | | CCTrCH ID 9.2.3.3 | | – | |
| >>>Transport Format Set | M | | 9.2.1.59 | For the DL. | – | |
| >>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>ToAWE | M | | 9.2.1.60 | | – | |
| >>>Max FACH Power | O | | DL Power 9.2.1.21 | Applicable to 1.28Mcps TDD only | YES | reject |
| >>>Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >>>Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| **>>PCH Parameters** | | *0..1* | | | YES | reject |
| >>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>PCH CCTrCH ID | M | | CCTrCH ID 9.2.3.3 | | – | |
| >>>Transport Format Set | M | | 9.2.1.59 | For the DL. | – | |
| >>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>ToAWE | M | | 9.2.1.60 | | – | |
| >>>CHOICE *HCR or LCR* | M | | | See note 1 below | – | |
| *>>>>3.84Mcps TDD* | | | | | – | |
| **>>>>>PICH Parameters** | | *0..1* | | | YES | reject |
| >>>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>>>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| >>>>>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>>>>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| >>>>>>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| >>>>>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>>>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>>>>Paging Indicator Length | M | | 9.2.3.8 | | – | |
| >>>>>>PICH Power | M | | 9.2.1.49A | | – | |
| *>>>>1.28Mcps TDD* | | | | | – | |
| **>>>>>PICH Parameters LCR** | | *1* | | | YES | reject |
| >>>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>>>TDD Channelisation Code LCR | M | | 9.2.3.19a | | – | |
| >>>>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>>>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>>>>>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| >>>>>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>>>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>>>>Paging Indicator Length | M | | 9.2.3.8 | | – | |
| >>>>>>PICH Power | M | | 9.2.1.49A | | – | |
| >>>>>>Second TDD Channelisation Code LCR | M | | TDD Channelisation Code LCR 9.2.3.19a | | – | |
| >>>>>>TSTD Indicator | O | | 9.2.1.64 | | YES | reject |
| >>>PCH Power | O | | DL Power 9.2.1.21 | Applicable to 1.28Mcps TDD only | YES | reject |
| >>>Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >>>Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | bearer establishment with ALCAP. | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>TSTD Indicator | O | | 9.2.1.64 | | YES | reject |
| **>>MICH Parameters** | | *0..1* | | | YES | reject |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>Notification Indicator Length | M | | 9.2.3.7Aa | | – | |
| >>>MICH Power | M | | PICH Power 9.2.1.49A | | – | |
| >>>CHOICE *HCR or LCR* | M | | | | – | |
| *>>>>3.84Mcps TDD* | | | | | – | |
| **>>>>>MICH Parameters HCR** | | *1* | | | YES | reject |
| >>>>>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| >>>>>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>>>>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| *>>>>1.28Mcps TDD* | | | | | – | |
| **>>>>>MICH Parameters LCR** | | *1* | | | YES | reject |
| >>>>>>TDD Channelisation Code LCR | M | | 9.2.3.19a | | – | |
| >>>>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>>>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>>>>>Second TDD Channelisation Code LCR | M | | TDD Channelisation Code LCR 9.2.3.19a | | – | |
| >>>>>>TSTD Indicator | M | | 9.2.1.64 | | – | |
| *>PRACH* | | | | | – | |
| >>CHOICE *HCR or LCR* | M | | | See note 1 below | – | |
| *>>>3.84Mcps TDD* | | | | | – | |
| **>>>>PRACH** | | *1* | | | YES | reject |
| >>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>>TFCS | M | | 9.2.1.58 | | – | |
| >>>>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| >>>>>Max PRACH Midamble Shifts | M | | 9.2.3.6 | | – | |
| >>>>>PRACH Midamble | M | | 9.2.3.14 | | – | |
| **>>>>>RACH** | | *1* | | | YES | reject |
| >>>>>>Common | M | | 9.2.1.14 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Transport Channel ID | | | | | | |
| >>>>>>Transport Format Set | M | | 9.2.1.59 | For the UL | – | |
| >>>>>>Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >>>>>>Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| *>>>1.28Mcps TDD* | | | | | – | |
| **>>>>PRACH LCR** | | *1..<maxnoofPRACHLCRs>* | | | GLOBAL | reject |
| >>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>>TFCS | M | | 9.2.1.58 | | – | |
| >>>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>>TDD Channelisation Code LCR | M | | 9.2.3.19a | | – | |
| >>>>>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| **>>>>>RACH** | | *1* | | | YES | reject |
| >>>>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>>>Transport Format Set | M | | 9.2.1.59 | For the UL | – | |
| >>>>>>Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >>>>>>Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| **>>FPACH** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>TDD Channelisation Code LCR | M | | 9.2.3.19a | | – | |
| >>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>>Max FPACH Power | M | | 9.2.3.5E | | – | |

Note 1: This information element is a simplified representation of the ASN.1. The choice is in reality performed through the use of ProtocolIE-Single-Container within the ASN.1.

Note 2: This information element is a simplified representation of the ASN.1. Repetitions 1 to 8 and repetitions 9 to maxnoofSCCPCHs / maxnoofSCCPCHsLCR are represented by separate ASN.1 structures.

| Range Bound | Explanation |
|---|---|
| *maxnoofSCCPCHs* | Maximum number of Secondary CCPCHs per CCTrCH for 3.84Mcps TDD |
| *maxnoofSCCPCHsLCR* | Maximum number of Secondary CCPCHs per CCTrCH for 1.28Mcps TDD |
| *maxnoofFACHs* | Maximum number of FACHs that can be defined on a Secondary CCPCH |
| *maxnoofPRACHLCRs* | Maximum number of PRACHs LCR that can be defined on a RACH for 1.28Mcps TDD |

## 9.1.4 COMMON TRANSPORT CHANNEL SETUP RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| **FACH Parameters Info** | | *0..<maxnoofFACHs>* | | The FACH Parameters may be combined with PCH Parameters | GLOBAL | ignore |
| >FACH Parameters | M | | Common Transport Channel Information Response 9.2.1.14A | | – | |
| PCH Parameters | O | | Common Transport Channel Information Response 9.2.1.14A | The PCH Parameters may be combined with FACH Parameters | YES | ignore |
| RACH Parameters | O | | Common Transport Channel Information Response 9.2.1.14A | The RACH Parameters shall not be combined with FACH Parameters or PCH Parameters | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofFACHs* | Maximum number of FACHs that can be defined on a Secondary CCPCH[FDD] / a group of Secondary CCPCHs [TDD] |

## 9.1.5 COMMON TRANSPORT CHANNEL SETUP FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | – |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | – |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.6 COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST

### 9.1.6.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| CHOICE *Common Physical Channel To Be Configured* | M | | | | YES | reject |
| *>Secondary CCPCH* | | | | | – | |
| **>>FACH Parameters** | | *0..<maxFACHCell>* | | | GLOBAL | reject |
| >>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>Max FACH Power | O | | DL Power 9.2.1.21 | Maximum allowed power on the FACH. | – | |
| >>>ToAWS | O | | 9.2.1.61 | | – | |
| >>>ToAWE | O | | 9.2.1.60 | | – | |
| **>>PCH Parameters** | | *0..1* | | | YES | reject |
| >>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>PCH Power | O | | DL Power 9.2.1.21 | Power to be used on the PCH. | – | |
| >>>ToAWS | O | | 9.2.1.61 | | – | |
| >>>ToAWE | O | | 9.2.1.60 | | – | |
| **>>PICH Parameters** | | *0..1* | | | YES | reject |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>PICH Power | O | | 9.2.1.49A | | – | |
| **>>MICH Parameters** | | *0..1* | | | YES | reject |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>MICH Power | O | | PICH Power 9.2.1.49A | | – | |
| *>PRACH* | | | | | – | |
| **>>PRACH Parameters** | | *0..<maxPRACHCell>* | | | GLOBAL | reject |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>Preamble Signatures | O | | 9.2.2.31 | | – | |
| **>>>Allowed Slot Format Information** | | *0..<maxnoofSlotFormatsPRACH>* | | | – | |
| >>>>RACH Slot Format | M | | 9.2.2.37 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>RACH Sub Channel Numbers | O | | 9.2.2.38 | | – | |
| **>>AICH Parameters** | | *0..<maxPRACHCell>* | | | GLOBAL | reject |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>AICH Power | O | | 9.2.2.D | | – | |
| *>Not Used* | | | NULL | This choice shall not be used. Reject procedure if received. | – | |

| Range Bound | Explanation |
|---|---|
| *maxFACHCell* | Maximum number of FACHs that can be defined in a Cell |
| *maxPRACHCell* | Maximum number of PRACHs and AICHs that can be defined in a Cell |
| *maxnoofSlotFormatsPRACH* | Maximum number of SF for a PRACH |

### 9.1.6.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| **Secondary CCPCH Parameters** | | *0..1* | | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| >CCTrCH ID | M | | 9.2.3.3 | For DL CCTrCH supporting one or several Secondary CCPCHs | – | |
| **>Secondary CCPCHs To Be Configured** | | *0..<maxnoofSCCPCHs>* | | See note 1 below | GLOBAL | reject |
| >>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>SCCPCH Power | O | | DL power 9.2.1.21 | | – | |
| **PICH Parameters** | | *0..1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >PICH Power | O | | 9.2.1.49A | | – | |
| **FACH Parameters** | | *0..<maxnoofFACHs>* | | | GLOBAL | reject |
| >Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >ToAWS | O | | 9.2.1.61 | | – | |
| >ToAWE | O | | 9.2.1.60 | | | |
| >Max FACH Power | O | | DL Power 9.2.1.21 | Applicable to 1.28Mcps TDD only | YES | reject |
| **PCH Parameters** | | *0..1* | | | YES | reject |
| >Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >ToAWS | O | | 9.2.1.61 | | – | |
| >ToAWE | O | | 9.2.1.60 | | – | |
| >PCH Power | O | | DL Power 9.2.1.21 | Applicable to 1.28Mcps TDD only | YES | reject |
| **FPACH Parameters** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >Max FPACH Power | O | | 9.2.3.5E | | – | |
| **MICH Parameters** | | *0..1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >MICH Power | O | | PICH Power 9.2.1.49A | | – | |

Note 1: This information element is a simplified representation of the ASN.1. Repetitions 1 to 8 and repetitions 9 to maxnoofSCCPCHs are represented by separate ASN.1 structures. Furthermore, maxnoofSCCPCHs has different values in the ASN.1 for each of the two TDD options.

| Range Bound | Explanation |
|---|---|
| *maxnoofSCCPCHs* | Maximum number of SCCPCHs that can be repeated in a Cell |
| *maxnoofFACHs* | Maximum number of FACHs that can be repeated in a Cell |

## 9.1.7 COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.8 COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.9 COMMON TRANSPORT CHANNEL DELETION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Common Physical Channel ID | M | | 9.2.1.13 | Indicates the Common Physical Channel for which the Common Transport Channels (together with the Common Physical Channel) shall be deleted. | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |

## 9.1.10 COMMON TRANSPORT CHANNEL DELETION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.11 BLOCK RESOURCE REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Blocking Priority Indicator | M | | 9.2.1.5 | | YES | reject |
| Shutdown Timer | C-BlockNormal | | 9.2.1.56 | | YES | reject |

| Condition | Explanation |
|---|---|
| BlockNormal | The IE shall be present if the *Blocking Priority Indicator* IE indicates "Normal Priority". |

## 9.1.12 BLOCK RESOURCE RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.13 BLOCK RESOURCE FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.14 UNBLOCK RESOURCE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | ignore |

## 9.1.15 AUDIT REQUIRED INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |

## 9.1.16 AUDIT REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Start Of Audit Sequence Indicator | M | | 9.2.1.56B | | YES | reject |

## 9.1.17 AUDIT RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| End Of Audit Sequence Indicator | M | | 9.2.1.29A | | YES | ignore |
| **Cell Information** | | *0..<maxCellinNodeB>* | | | EACH | ignore |
| >C-ID | M | | 9.2.1.9 | | – | |
| >Configuration Generation ID | M | | 9.2.1.16 | | – | |
| >Resource Operational State | M | | 9.2.1.52 | | – | |
| >Availability Status | M | | 9.2.1.2 | | – | |
| >Local Cell ID | M | | 9.2.1.38 | The local cell that the cell is configured on | – | |
| >Primary SCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | Applicable to FDD only | YES | ignore |
| >Secondary SCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | Applicable to FDD only | YES | ignore |
| >Primary CPICH Information | O | | Common Physical Channel Status Information 9.2.1.13A | Applicable to FDD only | YES | ignore |
| **>Secondary CPICH Information** | | *0..<maxSCPICHCell>* | | Applicable to FDD only | EACH | ignore |
| >>Secondary CPICH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| >Primary CCPCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | | YES | ignore |
| >BCH Information | O | | Common Transport Channel Status Information 9.2.1.14B | | YES | ignore |
| **>Secondary CCPCH** | | *0..<maxS* | | See note 1 | EACH | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Information** | | *CCPCHCell>* | | below | | |
| >>Secondary CCPCH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| >PCH Information | O | | Common Transport Channel Status Information 9.2.1.14B | | YES | ignore |
| >PICH Information | O | | Common Physical Channel Status Information 9.2.1.13A | | YES | ignore |
| **>FACH Information** | | *0..<maxFACHCell>* | | | EACH | ignore |
| >>FACH Individual Information | M | | Common Transport Channel Status Information 9.2.1.14B | | – | |
| **>PRACH Information** | | *0..<maxPRACHCell>* | | | EACH | ignore |
| >>PRACH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| **>RACH Information** | | *0..<maxRACHCell>* | | | EACH | ignore |
| >>RACH Individual Information | M | | Common Transport Channel Status Information 9.2.1.14B | | – | |
| **>AICH Information** | | *0..<maxPRACHCell>* | | Applicable to FDD only | EACH | ignore |
| >>AICH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| **>Not Used 1** | | | NULL | This item shall not be used. Ignore if received. | – | |
| **>Not Used 2** | | | NULL | This item shall not be used. | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | Ignore if received. | | |
| **>Not Used 3** | | | NULL | This item shall not be used. Ignore if received. | – | |
| **>Not Used 4** | | | NULL | This item shall not be used. Ignore if received. | – | |
| >SCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | TDD Sync Channel Applicable to 3.84Mcps TDD only | YES | ignore |
| **>FPACH Information** | | *0..<maxFPACHCell>* | | Applicable to 1.28Mcps TDD only | EACH | ignore |
| >>FPACH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| >DwPCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | Applicable to 1.28Mcps TDD only | YES | ignore |
| **>HS-DSCH Resources Information** | | *0..1* | | | YES | ignore |
| >>Resource Operational State | M | | 9.2.1.52 | | – | |
| >>Availability Status | M | | 9.2.1.2 | | – | |
| >MICH Information | O | | Common Physical Channel Status Information 9.2.1.13A | | YES | ignore |
| **>E-DCH Resources Information** | | *0..1* | | | YES | ignore |
| >>Resource Operational State | M | | 9.2.1.52 | | – | |
| >>Availability Status | M | | 9.2.1.2 | | – | |
| **Communication Control Port Information** | | *0..<maxCCPinNodeB>* | | | EACH | ignore |
| >Communication Control Port ID | M | | 9.2.1.15 | | – | |
| >Resource Operational State | M | | 9.2.1.52 | | – | |
| >Availability Status | M | | 9.2.1.2 | | – | |
| **Local Cell Information** | | *0..<maxLocalCellinNodeB>* | | | EACH | ignore |
| >Local Cell ID | M | | 9.2.1.38 | | – | |
| >DL Or Global Capacity Credit | M | | 9.2.1.20B | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >UL Capacity Credit | O | | 9.2.1.65A | | – | |
| >Common Channels Capacity Consumption Law | M | | 9.2.1.9A | | – | |
| >Dedicated Channels Capacity Consumption Law | M | | 9.2.1.20A | | – | |
| >Maximum DL Power Capability | O | | 9.2.1.39 | | – | |
| >Minimum Spreading Factor | O | | 9.2.1.47 | | – | |
| >Minimum DL Power Capability | O | | 9.2.1.46A | | – | |
| >Local Cell Group ID | O | | 9.2.1.37A | | – | |
| >Reference Clock Availability | O | | 9.2.3.14A | TDD only | YES | ignore |
| >Power Local Cell Group ID | O | | 9.2.1.49B | | YES | ignore |
| >HSDPA Capability | O | | 9.2.1.31Ga | | YES | ignore |
| >E-DCH Capability | O | | 9.2.2.13J | | YES | ignore |
| >E-DCH TTI2ms Capability | C-EDCHCapability | | 9.2.2.13V | | YES | ignore |
| >E-DCH SF Capability | C-EDCHCapability | | 9.2.2.13W | | YES | ignore |
| >E-DCH HARQ Combining Capability | C-EDCHCapability | | 9.2.2.13X | | YES | ignore |
| >E-DCH Capacity Consumption Law | O | | 9.2.2.13Ja | | YES | ignore |
| >F-DPCH Capability | O | | 9.2.2.16a | | YES | ignore |
| **Local Cell Group Information** | | *0..<maxLocalCellinNodeB>* | | | EACH | ignore |
| >Local Cell Group ID | M | | 9.2.1.37A | | – | |
| >DL Or Global Capacity Credit | M | | 9.2.1.20B | | – | |
| >UL Capacity Credit | O | | 9.2.1.65A | | – | |
| >Common Channels Capacity Consumption Law | M | | 9.2.1.9A | | – | |
| >Dedicated Channels Capacity Consumption Law | M | | 9.2.1.20A | | – | |
| >E-DCH Capacity Consumption Law | O | | 9.2.2.13Ja | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| **Power Local Cell Group Information** | | *0..<maxLocalCellinNodeB>* | | | EACH | ignore |
| >Power Local Cell Group ID | M | | 9.2.1.49B | | – | |
| >Maximum DL Power Capability | M | | 9.2.1.39 | | – | |

Note 1: This information element is a simplified representation of the ASN.1. [TDD – Repetitions 1 to 8 and repetitions 9 to maxSCCPCHCell are represented by separate ASN.1 structures.] Furthermore, maxSCCPCHCell has different values in the ASN.1 for FDD and for each of the two TDD options.

| Condition | Explanation |
|---|---|
| EDCHCapability | The IE shall be present if the *E-DCH Capability* IE is set to "E-DCH Capable". |

| Range Bound | Explanation |
|---|---|
| *maxCellinNodeB* | Maximum number of Cells that can be configured in Node B |
| *maxCCPinNodeB* | Maximum number of Communication Control Ports that can exist in the Node B |
| *maxLocalCellinNodeB* | Maximum number of Local Cells that can exist in the Node B |
| *maxSCPICHCell* | Maximum number of Secondary CPICHs that can be defined in a Cell. |
| *maxSCCPCHCell* | Maximum number of Secondary CCPCHs that can be defined in a Cell. |
| *maxFACHCell* | Maximum number of FACHs that can be defined in a Cell |
| *maxPRACHCell* | Maximum number of PRACHs that can be defined in a Cell |
| *maxRACHCell* | Maximum number of RACHs that can be defined in a Cell |
| *maxFPACHCell* | Maximum number of FPACHs that can be defined in a Cell |

## 9.1.17A AUDIT FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.18 COMMON MEASUREMENT INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Measurement ID | M | | 9.2.1.42 | | YES | reject |
| CHOICE *Common Measurement Object Type* | M | | | | YES | reject |
| *>Cell* | | | | | – | |
| >>C-ID | M | | 9.2.1.9 | | – | |
| >>Time Slot | O | | 9.2.3.23 | Applicable to 3.84Mcps TDD only | – | |
| >>Time Slot LCR | O | | 9.2.3.24A | Applicable to 1.28Mcps TDD only | YES | reject |
| **>>Neighbouring Cell Measurement Information** | | *0..<maxnoMeasNCells>* | | | GLOBAL | ignore |
| >>>CHOICE *Neighbouring Cell Measurement Information* | | | | | – | |
| *>>>>Neighbouring FDD Cell Measurement Information* | | | | FDD only | – | |
| >>>>>Neighbouring FDD Cell Measurement Information | M | | 9.2.1.47C | | – | |
| *>>>>Neighbouring TDD Cell Measurement Information* | | | | Applicable to 3.84Mcps TDD only | – | |
| >>>>>Neighbouring TDD Cell Measurement Information | M | | 9.2.1.47D | | – | |
| *>>>>Additional Neighbouring Cell Measurement Information* | | | | | – | |
| *>>>>>Neighbouring TDD Cell Measurement Information LCR* | | | | Applicable to 1.28Mcps TDD only | – | |
| >>>>>>Neighbouring TDD Cell Measurement Information LCR | M | | 9.2.1.47E | | YES | reject |
| *>RACH* | | | | FDD only | – | |
| >>C-ID | M | | 9.2.1.9 | | – | |
| >>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| *>Not Used* | | | NULL | This choice shall not be used. Reject procedure if received. | – | |
| *>Additional Common Measurement Object Types* | | | | | – | |
| *>>Power Local Cell Group* | | | | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>Power Local Cell Group ID | M | | 9.2.1.49B | | YES | reject |
| Common Measurement Type | M | | 9.2.1.11 | | YES | reject |
| Measurement Filter Coefficient | O | | 9.2.1.41 | | YES | reject |
| Report Characteristics | M | | 9.2.1.51 | | YES | reject |
| SFN Reporting Indicator | M | | FN Reporting Indicator 9.2.1.29B | | YES | reject |
| SFN | O | | 9.2.1.53A | | YES | reject |
| Common Measurement Accuracy | O | | 9.2.1.9B | | YES | reject |
| Measurement Recovery Behavior | O | | 9.2.1.43A | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoMeasNCells* | Maximum number of neighbouring cells that can be measured on. |

## 9.1.19 COMMON MEASUREMENT INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |
| CHOICE *Common Measurement Object Type* | O | | | Common Measurement Object Type that the measurement was initiated with. | YES | ignore |
| >*Cell* | | | | | – | |
| >>Common Measurement Value | M | | 9.2.1.12 | | – | |
| >*RACH* | | | | FDD only | – | |
| >>Common Measurement Value | M | | 9.2.1.12 | | – | |
| >*Not Used* | | | NULL | This choice shall not be used. | – | |
| >*Additional Common Measurement Object Types* | | | | | – | |
| >>*Power Local Cell Group* | | | | | – | |
| >>>Common Measurement Value | M | | 9.2.1.12 | | YES | ignore |
| SFN | O | | 9.2.1.53A | Common Measurement Time Reference | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| Common Measurement Achieved Accuracy | O | | Common Measurement Accuracy 9.2.1.9B | | YES | ignore |
| Measurement Recovery Support Indicator | O | | 9.2.1.43C | | YES | ignore |

## 9.1.20 COMMON MEASUREMENT INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.21 COMMON MEASUREMENT REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |
| CHOICE *Common Measurement Object Type* | M | | | Common Measurement Object Type that the measurement was initiated with. | YES | ignore |
| *>Cell* | | | | | – | |
| >>Common Measurement Value Information | M | | 9.2.1.12A | | – | |
| *>RACH* | | | | FDD only | – | |
| >>Common Measurement Value Information | M | | 9.2.1.12A | | – | |
| *>Not Used* | | | NULL | This choice shall not be used. | – | |
| *>Additional Common Measurement Object Types* | | | | | – | |
| *>>Power Local Cell Group* | | | | | – | |
| >>>Common Measurement Value Information | M | | 9.2.1.12A | | YES | ignore |
| SFN | O | | 9.2.1.53A | Common Measurement Time Reference | YES | ignore |
| Measurement Recovery Reporting Indicator | O | | 9.2.1.43B | | YES | ignore |

## 9.1.22 COMMON MEASUREMENT TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |

## 9.1.23 COMMON MEASUREMENT FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |
| Cause | M | | 9.2.1.6 | | YES | ignore |

## 9.1.24 CELL SETUP REQUEST

### 9.1.24.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Local Cell ID | M | | 9.2.1.38 | | YES | reject |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| T Cell | M | | 9.2.2.49 | | YES | reject |
| UARFCN | M | | 9.2.1.65 | Corresponds to Nu [14] | YES | reject |
| UARFCN | M | | 9.2.1.65 | Corresponds to Nd [14] | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| Maximum Transmission Power | M | | 9.2.1.40 | | YES | reject |
| Closed Loop Timing Adjustment Mode | O | | 9.2.2.2A | | YES | reject |
| Primary Scrambling Code | M | | 9.2.2.34 | | YES | reject |
| **Synchronisation Configuration** | | *1* | | | YES | reject |
| >N_INSYNC_IND | M | | 9.2.1.47A | | – | |
| >N_OUTSYNC_IND | M | | 9.2.1.47B | | – | |
| >T_RLFAILURE | M | | 9.2.1.56A | | – | |
| DL TPC Pattern 01 Count | M | | 9.2.2.13A | | YES | reject |
| **Primary SCH Information** | | *1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >Primary SCH Power | M | | DL Power 9.2.1.21 | | – | |
| >TSTD Indicator | M | | 9.2.1.64 | | – | |
| **Secondary SCH Information** | | *1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >Secondary SCH Power | M | | DL Power 9.2.1.21 | | – | |
| >TSTD Indicator | M | | 9.2.1.64 | | – | |
| **Primary CPICH Information** | | *1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >Primary CPICH power | M | | 9.2.2.33 | | – | |
| >Transmit Diversity Indicator | M | | 9.2.2.53 | | – | |
| **Secondary CPICH Information** | | *0..<maxSCPICHCell>* | | | EACH | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >DL Scrambling Code | M | | 9.2.2.13 | | – | |
| >FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >Secondary CPICH Power | M | | DL Power 9.2.1.21 | | – | |
| >Transmit Diversity Indicator | M | | 9.2.2.53 | | – | |
| **Primary CCPCH Information** | | *1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| **>BCH Information** | | *1* | | | – | |
| >>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>BCH Power | M | | DL Power 9.2.1.21 | | – | |
| >STTD Indicator | M | | 9.2.2.48 | | – | |
| **Limited Power Increase Information** | | *1* | | | YES | reject |
| >Power_Raise_Limit | M | | 9.2.2.29A | | – | |
| >DL_power_averaging_window_size | M | | 9.2.2.12A | | – | |
| **IPDL Parameter Information** | | *0..1* | | | YES | reject |
| >IPDL FDD Parameters | M | | 9.2.2.18C | | – | |
| >IPDL Indicator | M | | 9.2.1.36F | | – | |
| **Cell Portion Information** | | *0..<maxnoofCellPortions>* | | | EACH | reject |
| >Cell Portion ID | M | | 9.2.2.1Ca | | – | |
| >Associated Secondary CPICH | M | | Common Physical Channel ID 9.2.1.13 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >Maximum Transmission Power for Cell Portion | M | | Maximum Transmission Power 9.2.1.40 | | – | |

| Range Bound | Explanation |
|---|---|
| *maxSCPICHCell* | Maximum number of Secondary CPICHs that can be defined in a Cell. |
| *MaxNoofCellPortions* | Maximum number of Cell Portions in a cell |

### 9.1.24.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Local Cell ID | M | | 9.2.1.38 | | YES | reject |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation Id | M | | 9.2.1.16 | | YES | reject |
| UARFCN | M | | 9.2.1.65 | Corresponds to Nt [15] | YES | reject |
| Cell Parameter ID | M | | 9.2.3.4 | | YES | reject |
| Maximum Transmission Power | M | | 9.2.1.40 | | YES | reject |
| Transmission Diversity Applied | M | | 9.2.3.26 | | YES | reject |
| Sync Case | M | | 9.2.3.18 | | YES | reject |
| **Synchronisation Configuration** | | *1* | | | YES | reject |
| >N_INSYNC_IND | M | | 9.2.1.47A | | – | |
| >N_OUTSYNC_IND | M | | 9.2.1.47B | | – | |
| >T_RLFAILURE | M | | 9.2.1.56A | | – | |
| DPCH Constant Value | M | | Constant Value 9.2.3.4A | This IE shall be ignored by the Node B. | YES | reject |
| PUSCH Constant Value | M | | Constant Value 9.2.3.4A | This IE shall be ignored by the Node B. | YES | reject |
| PRACH Constant Value | M | | Constant Value 9.2.3.4A | This IE shall be ignored by the Node B. | YES | reject |
| Timing Advance Applied | M | | 9.2.3.22A | | YES | reject |
| **SCH Information** | | *0..1* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >CHOICE *Sync Case* | M | | | | YES | reject |
| >>*Case 1* | | | | | – | |
| >>>Time Slot | M | | 9.2.3.23 | | – | |
| >>*Case 2* | | | | | – | |
| >>>SCH Time Slot | M | | 9.2.3.17 | | – | |
| >SCH Power | M | | DL Power 9.2.1.21 | | – | |
| >TSTD Indicator | M | | 9.2.1.64 | | – | |
| **PCCPCH Information** | | *0..1* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| >Repetition Period | M | | 9.2.3.16 | | – | |
| >Repetition Length | M | | 9.2.3.15 | | – | |
| >PCCPCH Power | M | | 9.2.3.9 | | – | |
| >SCTD Indicator | M | | 9.2.3.30 | | – | |
| **Time Slot Configuration** | | *0..15* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps | GLOBAL | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | TDD. | | |
| >Time Slot | M | | 9.2.3.23 | | – | |
| >Time Slot Status | M | | 9.2.3.25 | | – | |
| >Time Slot Direction | M | | 9.2.3.24 | | – | |
| **Time Slot Configuration LCR** | | *0..7* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | GLOBAL | reject |
| >Time Slot LCR | M | | 9.2.3.24A | | – | |
| >Time Slot Status | M | | 9.2.3.25 | | – | |
| >Time Slot Direction | M | | 9.2.3.24 | | – | |
| **PCCPCH Information LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| >Repetition Period | M | | 9.2.3.16 | | – | |
| >Repetition Length | M | | 9.2.3.15 | | – | |
| >PCCPCH Power | M | | 9.2.3.9 | | – | |
| >SCTD Indicator | M | | 9.2.3.30 | | – | |
| >TSTD Indicator | M | | 9.2.1.64 | | – | |
| **DwPCH Information** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >TSTD Indicator | M | | 9.2.1.64 | | – | |
| >DwPCH Power | M | | 9.2.3.5B | | – | |
| Reference SFN Offset | O | | 9.2.3.14B | | YES | ignore |
| **IPDL Parameter Information** | | *0..1* | | Applicable to 3.84 Mcps TDD only | YES | reject |
| >IPDL TDD Parameters | M | | 9.2.3.5D | | – | |
| >IPDL Indicator | M | | 9.2.1.36F | | – | |
| **IPDL Parameter Information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | reject |
| >IPDL TDD Parameters LCR | M | | 9.2.3.5H | | – | |
| >IPDL Indicator | M | | 9.2.1.36F | | – | |

## 9.1.25 CELL SETUP RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.26 CELL SETUP FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

# 9.1.27 CELL RECONFIGURATION REQUEST

## 9.1.27.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| Maximum Transmission Power | O | | 9.2.1.40 | | YES | reject |
| **Synchronisation Configuration** | | *0..1* | | | YES | reject |
| >N_INSYNC_IND | M | | 9.2.1.47A | | – | |
| >N_OUTSYNC_IND | M | | 9.2.1.47B | | – | |
| >T_RLFAILURE | M | | 9.2.1.56A | | – | |
| **Primary SCH Information** | | *0..1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >Primary SCH Power | M | | DL Power 9.2.1.21 | | – | |
| **Secondary SCH Information** | | *0..1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >Secondary SCH Power | M | | DL Power 9.2.1.21 | | – | |
| **Primary CPICH Information** | | *0..1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >Primary CPICH Power | M | | 9.2.2.33 | | – | |
| **Secondary CPICH Information** | | *0..<maxSCPICHCell>* | | | EACH | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >Secondary CPICH Power | M | | DL Power 9.2.1.21 | | – | |
| **Primary CCPCH Information** | | *0..1* | | | YES | reject |
| **>BCH Information** | | *1* | | | – | |
| >>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>BCH Power | M | | DL Power 9.2.1.21 | | – | |
| **IPDL Parameter Information** | | *0..1* | | | YES | reject |
| >IPDL FDD Parameters | O | | 9.2.2.18C | | – | |
| >IPDL Indicator | M | | 9.2.1.36F | | – | |
| **Cell Portion Information** | | 0..<maxnoofCellPortions> | | | EACH | reject |
| >Cell Portion ID | M | | 9.2.2.1Ca | | – | |
| >Maximum Transmission Power for Cell Portion | M | | Maximum Transmission Power 9.2.1.40 | | – | |

| Range Bound | Explanation |
|---|---|
| *maxSCPICHCell* | Maximum number of Secondary CPICH that can be defined in a Cell. |

### 9.1.27.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| **Synchronisation Configuration** | | *0..1* | | | YES | reject |
| >N_INSYNC_IND | M | | 9.2.1.47A | | – | |
| >N_OUTSYNC_IND | M | | 9.2.1.47B | | – | |
| >T_RLFAILURE | M | | 9.2.1.56A | | – | |
| Timing Advance Applied | O | | 9.2.3.22A | | YES | reject |
| **SCH Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >SCH Power | M | | DL Power 9.2.1.21 | | – | |
| **PCCPCH Information** | | *0..1* | | | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >PCCPCH Power | M | | 9.2.3.9 | | – | |
| Maximum Transmission Power | O | | 9.2.1.40 | | YES | reject |
| DPCH Constant Value | O | | Constant Value 9.2.3.4A | This IE shall be ignored by the Node B. | YES | reject |
| PUSCH Constant Value | O | | Constant Value 9.2.3.4A | This IE shall be ignored by the Node B. | YES | reject |
| PRACH Constant Value | O | | Constant Value 9.2.3.4A | This IE shall be ignored by the Node B. | YES | reject |
| **Time Slot Configuration** | | *0..15* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | GLOBAL | reject |
| >Time Slot | M | | 9.2.3.23 | | – | |
| >Time Slot Status | M | | 9.2.3.25 | | – | |
| >Time Slot Direction | M | | 9.2.3.24 | | – | |
| **Time Slot Configuration LCR** | | *0..7* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | GLOBAL | reject |
| >Time Slot LCR | M | | 9.2.3.24A | | – | |
| >Time Slot Status | M | | 9.2.3.25 | | – | |
| >Time Slot Direction | M | | 9.2.3.24 | | – | |
| **DwPCH Information** | | *0..1* | | Applicable to 1.28Mcps TDD only. | YES | reject |
| >Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >DwPCH Power | M | | 9.2.3.5B | | – | |
| **IPDL Parameter Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | reject |
| >IPDL TDD Parameters | O | | 9.2.3.5D | | – | |
| >IPDL Indicator | M | | 9.2.1.36F | | – | |
| **IPDL Parameter Information** | | *0..1* | | Applicable to | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| **LCR** | | | | 1.28Mcps TDD only | | |
| >IPDL TDD Parameters LCR | O | | 9.2.3.5H | | – | |
| >IPDL Indicator | M | | 9.2.1.36F | | – | |

## 9.1.28 CELL RECONFIGURATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.29 CELL RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.30 CELL DELETION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |

## 9.1.31 CELL DELETION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.32 RESOURCE STATUS INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CHOICE *Indication Type* | M | | | | YES | ignore |
| *>No Failure* | | | | | – | |
| **>>Local Cell Information** | | *1..<max LocalCellinNodeB>* | | | EACH | ignore |
| >>>Local Cell ID | M | | 9.2.1.38 | | – | |
| >>>Add/Delete Indicator | M | | 9.2.1.1 | | – | |
| >>>DL Or Global Capacity Credit | C-add | | 9.2.1.20B | | – | |
| >>>UL Capacity Credit | O | | 9.2.1.65A | | – | |
| >>>Common Channels Capacity Consumption Law | C-add | | 9.2.1.9A | | – | |
| >>>Dedicated Channels Capacity Consumption Law | C-add | | 9.2.1.20A | | – | |
| >>>Maximum DL Power Capability | C-add | | 9.2.1.39 | | – | |
| >>>Minimum Spreading Factor | C-add | | 9.2.1.47 | | – | |
| >>>Minimum DL Power Capability | C-add | | 9.2.1.46A | | – | |
| >>>Local Cell Group ID | O | | 9.2.1.37A | | – | |
| >>>Reference Clock Availability | O | | 9.2.3.14A | TDD only | YES | ignore |
| >>>Power Local Cell Group ID | O | | 9.2.1.49B | | YES | ignore |
| >>>HSDPA Capability | O | | 9.2.1.31Ga | | YES | ignore |
| >>>E-DCH Capability | O | | 9.2.2.13J | | YES | ignore |
| >>>E-DCH TTI2ms Capability | C-EDCHCapability | | 9.2.2.13V | | YES | ignore |
| >>>E-DCH SF Capability | C-EDCHCapability | | 9.2.2.13W | | YES | ignore |
| >>>E-DCH HARQ Combining Capability | C-EDCHCapability | | 9.2.2.13X | | YES | ignore |
| >>>E-DCH Capacity Consumption Law | O | | 9.2.2.13Ja | | YES | ignore |
| >>>F-DPCH Capability | O | | 9.2.2.16a | | YES | ignore |
| **>>Local Cell Group Information** | | *0..<maxLocalCellinNodeB>* | | | EACH | ignore |
| >>>Local Cell Group ID | M | | 9.2.1.37A | | – | |
| >>>DL Or Global Capacity Credit | M | | 9.2.1.20B | | – | |
| >>>UL Capacity Credit | O | | 9.2.1.65A | | – | |
| >>>Common Channels Capacity Consumption Law | M | | 9.2.1.9A | | – | |
| >>>Dedicated Channels | M | | 9.2.1.20A | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Capacity Consumption Law | | | | | | |
| >>>E-DCH Capacity Consumption Law | O | | 9.2.2.13Ja | | YES | ignore |
| **>>Power Local Cell Group Information** | | *0..<maxLocalCellinNodeB>* | | | EACH | ignore |
| >>>Power Local Cell Group ID | M | | 9.2.1.49B | | – | |
| >>>Maximum DL Power Capability | M | | 9.2.1.39 | | – | |
| *>Service Impacting* | | | | | – | |
| **>>Local Cell Information** | | *0..<maxLocalCellinNodeB>* | | | EACH | ignore |
| >>>Local Cell ID | M | | 9.2.1.38 | | – | |
| >>>DL Or Global Capacity Credit | O | | 9.2.1.20B | | – | |
| >>>UL Capacity Credit | O | | 9.2.1.65A | | – | |
| >>>Common Channels Capacity Consumption Law | O | | 9.2.1.9A | | – | |
| >>>Dedicated Channels Capacity Consumption Law | O | | 9.2.1.20A | | – | |
| >>>Maximum DL Power Capability | O | | 9.2.1.39 | | – | |
| >>>Minimum Spreading Factor | O | | 9.2.1.47 | | – | |
| >>>Minimum DL Power Capability | O | | 9.2.1.46A | | – | |
| >>>Reference Clock Availability | O | | 9.2.3.14A | TDD only | YES | ignore |
| >>>HSDPA Capability | O | | 9.2.1.31Ga | | YES | ignore |
| >>>E-DCH Capability | O | | 9.2.2.13J | | YES | ignore |
| >>>E-DCH TTI2ms Capability | C-EDCHCapability | | 9.2.2.13V | | YES | ignore |
| >>>E-DCH SF Capability | C-EDCHCapability | | 9.2.2.13W | | YES | ignore |
| >>>E-DCH HARQ Combining Capability | C-EDCHCapability | | 9.2.2.13X | | YES | ignore |
| >>>E-DCH Capacity Consumption Law | O | | 9.2.2.13Ja | | YES | ignore |
| >>>F-DPCH Capability | O | | 9.2.2.16a | | YES | ignore |
| **>>Local Cell Group Information** | | *0..<maxLocalCellinNodeB>* | | | EACH | ignore |
| >>>Local Cell Group ID | M | | 9.2.1.37A | | – | |
| >>>DL Or Global Capacity Credit | O | | 9.2.1.20B | | – | |
| >>>UL Capacity Credit | O | | 9.2.1.65A | | – | |
| >>>Common Channels Capacity Consumption Law | O | | 9.2.1.9A | | – | |
| >>>Dedicated Channels Capacity Consumption Law | O | | 9.2.1.20A | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>E-DCH Capacity Consumption Law | O | | 9.2.2.13Ja | | YES | ignore |
| **>>Communication Control Port Information** | | *0..<maxCCPinNodeB>* | | | EACH | ignore |
| >>>Communication Control Port ID | M | | 9.2.1.15 | | – | |
| >>>Resource Operational State | M | | 9.2.1.52 | | – | |
| >>>Availability Status | M | | 9.2.1.2 | | – | |
| **>>Cell Information** | | *0..<maxCellinNodeB>* | | | EACH | ignore |
| >>>C-ID | M | | 9.2.1.9 | | – | |
| >>>Resource Operational State | O | | 9.2.1.52 | | – | |
| >>>Availability Status | O | | 9.2.1.2 | | – | |
| >>>Primary SCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | FDD only | YES | ignore |
| >>>Secondary SCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | FDD only | YES | ignore |
| >>>Primary CPICH Information | O | | Common Physical Channel Status Information 9.2.1.13A | FDD only | YES | ignore |
| **>>>Secondary CPICH Information** | | *0..<maxSCPICHCell>* | | FDD only | EACH | ignore |
| >>>>Secondary CPICH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| >>>Primary CCPCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | | YES | ignore |
| >>>BCH Information | O | | Common Transport Channel Status Information 9.2.1.14B | | YES | ignore |
| **>>>Secondary CCPCH Information** | | *0..<maxSCCPCHCell>* | | See note 1 below | EACH | ignore |
| >>>>Secondary CCPCH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| >>>PCH Information | O | | Common | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | Transport Channel Status Information 9.2.1.14B | | | |
| >>>PICH Information | O | | Common Physical Channel Status Information 9.2.1.13A | | YES | ignore |
| **>>>FACH Information** | | *0..<maxFACHCell>* | | | EACH | ignore |
| >>>>FACH Individual Information | M | | Common Transport Channel Status Information 9.2.1.14B | | – | |
| **>>>PRACH Information** | | *0..<maxPRACHCell>* | | | EACH | ignore |
| >>>>PRACH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| **>>>RACH Information** | | *0..<maxPRACHCell>* | | | EACH | ignore |
| >>>>RACH Individual Information | M | | Common Transport Channel Status Information 9.2.1.14B | | – | |
| **>>>AICH Information** | | *0..<maxPRACHCell>* | | FDD only | EACH | ignore |
| >>>>AICH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| **>>>Not Used 1** | | | NULL | This item shall not be used. Ignore if received. | – | |
| **>>>Not Used 2** | | | NULL | This item shall not be used. Ignore if received. | – | |
| **>>>Not Used 3** | | | NULL | This item shall not be used. Ignore if received. | – | |
| **>>>Not Used 4** | | | NULL | This item shall not be used. Ignore if received. | – | |
| >>>SCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | Applicable to 3.84Mcps TDD only | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| **>>>FPACH Information** | | *0..<maxFPACHCell>* | | Applicable to 1.28Mcps TDD only | EACH | ignore |
| >>>>FPACH Individual Information | M | | Common Physical Channel Status Information 9.2.1.13A | | – | |
| >>>DwPCH Information | O | | Common Physical Channel Status Information 9.2.1.13A | Applicable to 1.28Mcps TDD only | YES | ignore |
| **>>>HS-DSCH Resources Information** | | *0..1* | | | YES | ignore |
| >>>>Resource Operational State | M | | 9.2.1.52 | | – | |
| >>>>Availability Status | M | | 9.2.1.2 | | – | |
| >>>MICH Information | O | | Common Physical Channel Status Information 9.2.1.13A | | YES | ignore |
| **>>>E-DCH Resources Information** | | *0..1* | | | YES | ignore |
| >>>>Resource Operational State | M | | 9.2.1.52 | | – | |
| >>>>Availability Status | M | | 9.2.1.2 | | – | |
| **>>Power Local Cell Group Information** | | *0..<maxLocalCellinNodeB>* | | | EACH | ignore |
| >>>Power Local Cell Group ID | M | | 9.2.1.49B | | – | |
| >>>Maximum DL Power Capability | M | | 9.2.1.39 | | – | |
| Cause | O | | 9.2.1.6 | | YES | ignore |

Note 1: This information element is a simplified representation of the ASN.1. [TDD – Repetitions 1 to 8 and repetitions 9 to maxSCCPCHCell are represented by separate ASN.1 structures.] Furthermore, maxSCCPCHCell has different values in the ASN.1 for FDD and for each of the two TDD options.

| Condition | Explanation |
|---|---|
| add | The IE shall be present if the *Add/Delete Indicator* IE is set to "Add". |
| EDCHCapability | The IE shall be present if the *E-DCH Capability* IE is set to "E-DCH Capable". |

| Range Bound | Explanation |
|---|---|
| *maxLocalCellinNodeB* | Maximum number of Local Cells that can exist in the Node B |
| *maxCellinNodeB* | Maximum number of C-IDs that can be configured in the Node B |
| *maxSCPICHCell* | Maximum number of Secondary CPICHs that can be defined in a Cell. |
| *maxSCCPCHCell* | Maximum number of Secondary CCPCHs that can be defined in a Cell. |
| *maxFACHCell* | Maximum number of FACHs that can be defined in a Cell |
| *maxPRACHCell* | Maximum number of PRACHs and AICHs that can be defined in a Cell |
| *maxCCPinNodeB* | Maximum number of Communication Control Ports that can exist in the Node B |
| *maxFPACHCell* | Maximum number of FPACHs that can be defined in a Cell |

## 9.1.33 SYSTEM INFORMATION UPDATE REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| BCCH Modification Time | O | | 9.2.1.3 | | YES | reject |
| **MIB/SB/SIBInformation** | | *1..<maxIB>* | | | GLOBAL | reject |
| >IB Type | M | | 9.2.1.35 | | – | |
| >IB OC ID | M | | 9.2.1.31A | In one message, every occurrence of IB Type can only be deleted once and/or added once. | – | |
| >CHOICE *IB Deletion Indicator* | M | | | | – | |
| *>>No Deletion* | | | | | – | |
| >>>SIB Originator | C-SIB | | 9.2.1.55 | | – | |
| >>>IB SG REP | O | | 9.2.1.34 | | – | |
| **>>>Segment Information** | | *1..<maxIB SEG>* | | | GLOBAL | reject |
| >>>>IB SG POS | O | | 9.2.1.33 | | – | |
| >>>>Segment Type | C-CRNCOrigination | | 9.2.1.53B | | – | |
| >>>>IB SG DATA | C-CRNCOrigination | | 9.2.1.32 | | – | |
| *>>Deletion* | | | NULL | | – | |

| Range bound | Explanation |
|---|---|
| *maxIB* | Maximum number of information Blocks supported in one message |
| *maxIBSEG* | Maximum number of segments for one Information Block |

| Condition | Explanation |
|---|---|
| CRNCOrigination | The IE shall be present if the *SIB Originator* IE is set to "CRNC" or if the *IB Type* IE is set to "MIB", "SB1" or "SB2". |
| SIB | The IE shall be present if the *IB Type* IE is set to "SIB". |

## 9.1.34 SYSTEM INFORMATION UPDATE RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.35 SYSTEM INFORMATION UPDATE FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

# 9.1.36 RADIO LINK SETUP REQUEST

## 9.1.36.1 FDD message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | reject |
| **UL DPCH Information** | | *1* | | | YES | reject |
| >UL Scrambling Code | M | | 9.2.2.59 | | – | |
| >Min UL Channelisation Code Length | M | | 9.2.2.22 | | – | |
| >Max Number of UL DPDCHs | C-CodeLen | | 9.2.2.21 | | – | |
| >Puncture Limit | M | | 9.2.1.50 | For UL | – | |
| >TFCS | M | | 9.2.1.58 | For UL | – | |
| >UL DPCCH Slot Format | M | | 9.2.2.57 | | – | |
| >UL SIR Target | M | | UL SIR 9.2.1.67A | | – | |
| >Diversity Mode | M | | 9.2.2.9 | | – | |
| >Not Used | O | | NULL | | – | |
| >Not Used | O | | NULL | | – | |
| >DPC Mode | O | | 9.2.2.13C | | YES | reject |
| >UL DPDCH Indicator For E-DCH Operation | C-ifEDPCHInfo | | 9.2.2.61 | | YES | reject |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | M | | 9.2.1.58 | For DL | – | |
| >DL DPCH Slot Format | M | | 9.2.2.10 | | – | |
| >TFCI Signalling Mode | M | | 9.2.2.50 | | – | |
| >TFCI Presence | C-SlotFormat | | 9.2.1.57 | | – | |
| >Multiplexing Position | M | | 9.2.2.23 | | – | |
| >Not Used | O | | NULL | | – | |
| >Not Used | O | | NULL | | – | |
| **>Power Offset Information** | | *1* | | | – | |
| >>PO1 | M | | Power Offset 9.2.2.29 | Power offset for the TFCI bits | – | |
| >>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits | – | |
| >>PO3 | M | | Power Offset 9.2.2.29 | Power offset for the pilot bits | – | |
| >FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.18A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.18B | | – | |
| DCH Information | M | | DCH FDD Information 9.2.2.4D | | YES | reject |
| **RL Information** | | *1..<maxnoofRLs>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.53 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >C-ID | M | | 9.2.1.9 | | – | |
| >First RLS Indicator | M | | 9.2.2.16A | | – | |
| >Frame Offset | M | | 9.2.1.31 | | – | |
| >Chip Offset | M | | 9.2.2.2 | | – | |
| >Propagation Delay | O | | 9.2.2.35 | | – | |
| >Diversity Control Field | C-NotFirstRL | | 9.2.1.25 | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | – | |
| >Initial DL Transmission Power | M | | DL Power 9.2.1.21 | Initial power on DPCH or on F-DPCH | – | |
| >Maximum DL Power | M | | DL Power 9.2.1.21 | Maximum allowed power on DPCH or on F-DPCH | – | |
| >Minimum DL Power | M | | DL Power 9.2.1.21 | Minimum allowed power on DPCH or on F-DPCH | – | |
| >Not Used | O | | NULL | | – | |
| >Transmit Diversity Indicator | C-Diversity mode | | 9.2.2.53 | | – | |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.24C | | YES | reject |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.33A | | YES | ignore |
| >Secondary CPICH Information | O | | Common Physical Channel ID 9.2.1.13 | | YES | ignore |
| >E-DCH RL Indication | O | | 9.2.2.13De | | YES | reject |
| >RL Specific E-DCH Information | O | | 9.2.2.39a | | YES | ignore |
| >Synchronisation Indicator | O | | 9.2.2.48A | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.53A | | YES | reject |
| Active Pattern Sequence Information | O | | 9.2.2.A | | YES | reject |
| DL Power Balancing Information | O | | 9.2.2.12B | | YES | ignore |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.18D | | YES | reject |
| HS-DSCH-RNTI | C-InfoHSDSCH | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | C-InfoHSDSCH | | RL ID 9.2.1.53 | | YES | reject |
| **E-DPCH Information** | | *0..1* | | | YES | reject |
| >Maximum Set of E-DPDCHs | M | | 9.2.2.20C | | – | |
| >Puncture Limit | M | | 9.2.1.50 | | – | |
| >E-TFCS Information | M | | 9.2.2.13Dh | | – | |
| >E-TTI | M | | 9.2.2.13Di | | – | |
| >E-DPCCH Power Offset | M | | 9.2.2.13Dj | | – | |
| >E-RGCH 2-Index-Step | M | | 9.2.2.13Ig | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Threshold | | | | | | |
| >E-RGCH 3-Index-Step Threshold | M | | 9.2.2.13Ih | | – | |
| >HARQ Info for E-DCH | M | | 9.2.2.18ba | | – | |
| >HS-DSCH Configured Indicator | M | | 9.2.2.18Ca | | – | |
| E-DCH FDD Information | C-EDPCHInfo | | 9.2.2.13Da | | YES | reject |
| Serving E-DCH RL | O | | 9.2.2.48B | | YES | reject |
| **F-DPCH Information** | | *0..1* | | | YES | reject |
| **>Power Offset Information** | | *1* | | | – | |
| >>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits | – | |
| >FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.18A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.18B | | – | |
| Initial DL DPCH Timing Adjustment Allowed | O | | 9.2.2.18K | | YES | ignore |
| DCH Indicator For E-DCH-HSDPA Operation | O | | 9.2.2.4F | | YES | reject |

| Condition | Explanation |
|---|---|
| CodeLen | The IE shall be present if *Min UL Channelisation Code Length* IE equals to 4. |
| NotFirstRL | The IE shall be present if the RL is not the first one in the *RL Information* IE. |
| SlotFormat | The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if *Diversity Mode* IE in *UL DPCH Information* IE is not set to "none". |
| InfoHSDSCH | The IE shall be present if *HS-DSCH Information* IE is present. |
| EDPCHInfo | This IE shall be present if *E-DPCH Information* IE is present. |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

### 9.1.36.2 TDD message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | reject |
| **UL CCTrCH Information** | | *0..<maxnoCCTrCH>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| >TFCS | M | | 9.2.1.58 | | – | |
| >TFCI Coding | M | | 9.2.3.22 | | – | |
| >Puncture Limit | M | | 9.2.1.50 | | – | |
| **>UL DPCH Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | notify |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>UL Timeslot Information | M | | 9.2.3.26C | | – | |
| **>UL DPCH Information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | notify |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>UL Timeslot Information LCR | M | | 9.2.3.26E | | – | |
| >UL SIR Target | O | | UL SIR 9.2.1.67A | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >TDD TPC UL Step Size | O | | 9.2.3.21a | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| **DL CCTrCH Information** | | *0..<maxnoCCTrCH>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| >TFCS | M | | 9.2.1.58 | | – | |
| >TFCI Coding | M | | 9.2.3.22 | | – | |
| >Puncture Limit | M | | 9.2.1.50 | | – | |
| >TDD TPC DL Step Size | M | | 9.2.3.21 | | – | |
| **>TPC CCTrCH List** | | *0..<maxnoCCTrCH>* | | List of uplink CCTrCH which provide TPC | – | |
| >>TPC CCTrCH ID | M | | CCTrCH ID 9.2.3.3 | | – | |
| **>DL DPCH information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | notify |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD DPCH Offset | M | | 9.2.3.19A | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>DL Timeslot Information | M | | 9.2.3.4E | | – | |
| **>DL DPCH information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | notify |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>DL Timeslot Information LCR | M | | 9.2.3.4O | | – | |
| >>TSTD Indicator | M | | 9.2.1.64 | | – | |
| >CCTrCH Initial DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >CCTrCH Maximum DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >CCTrCH Minimum DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| DCH Information | O | | DCH TDD Information 9.2.3.4C | | YES | reject |
| DSCH Information | O | | DSCH TDD Information 9.2.3.5A | | YES | reject |
| USCH Information | O | | 9.2.3.28 | | YES | reject |
| **RL Information** | | *1* | | | YES | reject |
| >RL ID | M | | 9.2.1.53 | | – | |
| >C-ID | M | | 9.2.1.9 | | – | |
| >Frame Offset | M | | 9.2.1.31 | | – | |
| >Special Burst Scheduling | M | | 9.2.3.18A | | – | |
| >Initial DL Transmission Power | M | | DL Power 9.2.1.21 | | – | |
| >Maximum DL Power | M | | DL Power 9.2.1.21 | | – | |
| >Minimum DL Power | M | | DL Power 9.2.1.21 | | – | |
| >DL Time Slot ISCP Info | O | | 9.2.3.4F | Applicable to 3.84Mcps TDD only | – | |
| >DL Time Slot ISCP Info LCR | O | | 9.2.3.4P | Applicable to 1.28Mcps TDD only | YES | reject |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.24C | | YES | reject |
| **>UL Synchronisation Parameters LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >>Uplink Synchronisation Step Size | M | | 9.2.3.26H | | – | |
| >>Uplink Synchronisation Frequency | M | | 9.2.3.26G | | – | |
| HS-DSCH Information | O | | HS-DSCH TDD Information 9.2.3.5F | | YES | reject |
| HS-DSCH-RNTI | C-InfoHSDSCH | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | C-InfoHSDSCH | | RL ID 9.2.1.53 | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| PDSCH-RL-ID | O | | RL ID 9.2.1.53 | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoCCTrCH* | Number of CCTrCHs for one UE |

| Condition | Explanation |
|---|---|
| InfoHSDSCH | The IE shall be present if *HS-DSCH Information* IE is present. |

# 9.1.37 RADIO LINK SETUP RESPONSE

## 9.1.37.1 FDD message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | ignore |
| Communication Control Port ID | M | | 9.2.1.15 | | YES | ignore |
| **RL Information Response** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >RL Set ID | M | | 9.2.2.39 | | – | |
| >Received Total Wide Band Power | M | | 9.2.2.39A | | – | |
| >CHOICE *Diversity Indication* | M | | | | – | |
| *>>Combining* | | | | | – | |
| >>>RL ID | M | | 9.2.1.53 | Reference RL ID for the combining | – | |
| *>>Non Combining or First RL* | | | | | – | |
| >>>DCH Information Response | M | | 9.2.1.20C | | – | |
| >>>E-DCH FDD Information Response | O | | 9.2.2.13Db | | YES | ignore |
| >Not Used | O | | NULL | | – | |
| >SSDT Support Indicator | M | | 9.2.2.46 | | – | |
| >DL Power Balancing Activation Indicator | O | | 9.2.2.12C | | YES | ignore |
| >E-DCH RL Set ID | O | | RL Set ID 9.2.2.39 | | YES | ignore |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.13Dc | | YES | ignore |
| >Initial DL DPCH Timing Adjustment | O | | DL DPCH Timing Adjustment 9.2.2.10A | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.18E | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

### 9.1.37.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | ignore |
| Communication Control Port ID | M | | 9.2.1.15 | | YES | ignore |
| **RL Information Response** | | *0..1* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | YES | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >UL Time Slot ISCP Info | M | | 9.2.3.26D | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.26B | | – | |
| >DCH Information Response | O | | 9.2.1.20C | | YES | ignore |
| >DSCH Information Response | O | | 9.2.3.5b | | YES | ignore |
| >USCH Information Response | O | | 9.2.3.29 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| **RL Information Response LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >UL Time Slot ISCP Info LCR | M | | 9.2.3.26F | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.26B | | – | |
| >DCH Information Response | O | | 9.2.1.20C | | YES | ignore |
| >DSCH Information Response | O | | 9.2.3.5b | | YES | ignore |
| >USCH Information Response | O | | 9.2.3.29 | | YES | ignore |
| HS-DSCH Information Response | O | | HS-DSCH TDD Information Response 9.2.3.5G | | YES | ignore |

# 9.1.38 RADIO LINK SETUP FAILURE

## 9.1.38.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| Node B Communication Context ID | C-Success | | 9.2.1.48 | The reserved value "All NBCC" shall not be used | YES | ignore |
| Communication Control Port ID | O | | 9.2.1.15 | | YES | ignore |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.6 | | – | |
| *>RL Specific* | | | | | – | |
| **>>Unsuccessful RL Information Response** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| **>>Successful RL Information Response** | | *0..<maxnoofRLs>* | | Note: There will never be maxnoofRLs repetitions of this sequence. | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>RL Set ID | M | | 9.2.2.39 | | – | |
| >>>Received Total Wide Band Power | M | | 9.2.2.39A | | – | |
| >>>CHOICE *Diversity Indication* | M | | | | – | |
| *>>>>Combining* | | | | | – | |
| >>>>>RL ID | M | | 9.2.1.53 | Reference RL ID for the combining | – | |
| *>>>>Non Combining or First RL* | | | | | – | |
| >>>>>DCH Information Response | M | | 9.2.1.20C | | – | |
| >>>>>E-DCH FDD Information Response | O | | 9.2.2.13Db | | YES | ignore |
| >>>Not Used | O | | NULL | | – | |
| >>>Not Used | O | | NULL | | – | |
| >>>SSDT Support Indicator | M | | 9.2.2.46 | | – | |
| >>>DL Power Balancing Activation Indicator | O | | 9.2.2.12C | | YES | ignore |
| >>>E-DCH RL Set ID | O | | RL Set ID 9.2.2.39 | | YES | ignore |
| >>>E-DCH FDD DL | O | | 9.2.2.13Dc | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| Control Channel Information | | | | | | |
| >>>Initial DL DPCH Timing Adjustment | O | | DL DPCH Timing Adjustment 9.2.2.10A | | YES | ignore |
| >>HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.18E | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

| Condition | Explanation |
|---|---|
| Success | The IE shall be present if at least one of the radio links has been successfully set up. |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

## 9.1.38.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.6 | | – | |
| *>RL Specific* | | | | | – | |
| **>>Unsuccessful RL Information Response** | | *1* | | | YES | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

# 9.1.39 RADIO LINK ADDITION REQUEST

## 9.1.39.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | reject |
| Compressed Mode Deactivation Flag | O | | 9.2.2.3A | | YES | reject |
| **RL Information** | | *1..<maxnoofRLs-1>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.53 | | – | |
| >C-ID | M | | 9.2.1.9 | | – | |
| >Frame Offset | M | | 9.2.1.31 | | – | |
| >Chip Offset | M | | 9.2.2.2 | | – | |
| >Diversity Control Field | M | | 9.2.1.25 | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | – | |
| >Initial DL Transmission Power | O | | DL Power 9.2.1.21 | Initial power on DPCH or on F-DPCH | – | |
| >Maximum DL Power | O | | DL Power 9.2.1.21 | Maximum allowed power on DPCH or on F-DPCH | – | |
| >Minimum DL Power | O | | DL Power 9.2.1.21 | Minimum allowed power on DPCH or on F-DPCH | – | |
| >Not Used | O | | NULL | | – | |
| >Transmit Diversity Indicator | O | | 9.2.2.53 | | – | |
| >DL Reference Power | O | | DL power 9.2.1.21 | Power on DPCH or on F-DPCH | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.24C | | YES | reject |
| >E-DCH RL Indication | O | | 9.2.2.13De | | YES | reject |
| >RL Specific E-DCH Information | O | | 9.2.2.39a | | YES | ignore |
| >Synchronisation Indicator | O | | 9.2.2.48A | | YES | ignore |
| Initial DL DPCH Timing Adjustment Allowed | O | | 9.2.2.18K | | YES | ignore |
| HS-DSCH Serving Cell Change Information | O | | 9.2.2.18Eb | | YES | reject |
| Serving E-DCH RL | O | | 9.2.2.48B | | YES | reject |
| Serving Cell Change CFN | O | | CFN 9.2.1.7 | | YES | reject |
| **E-DPCH Information** | | *0..1* | | | YES | reject |
| >Maximum Set of E-DPDCHs | M | | 9.2.2.20C | | – | |
| >Puncture Limit | M | | 9.2.1.50 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >E-TFCS Information | M | | 9.2.2.13Dh | | – | |
| >E-TTI | M | | 9.2.2.13Di | | – | |
| >E-DPCCH Power Offset | M | | 9.2.2.13Dj | | – | |
| >E-RGCH 2-Index-Step Threshold | M | | 9.2.2.13Ig | | – | |
| >E-RGCH 3-Index-Step Threshold | M | | 9.2.2.13Ih | | – | |
| >HARQ Info for E-DCH | M | | 9.2.2.18ba | | – | |
| >HS-DSCH Configured Indicator | M | | 9.2.2.18Ca | | YES | reject |
| E-DCH FDD Information | C-EDPCHInfo | | 9.2.2.13Da | | YES | reject |

| Condition | Explanation |
|---|---|
| EDPCHInfo | This IE shall be present if *E-DPCH Information* IE is present. |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

### 9.1.39.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | reject |
| **UL CCTrCH Information** | | *0..<maxnoCCTrCH>* | | | GLOBAL | reject |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| **>UL DPCH Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | notify |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>UL Timeslot Information | M | | 9.2.3.26C | | – | |
| **>UL DPCH Information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | notify |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>UL Timeslot Information LCR | M | | 9.2.3.26E | | – | |
| >TDD TPC UL Step Size | O | | 9.2.3.21a | Applicable to 1.28Mcps TDD only | YES | reject |
| **DL CCTrCH Information** | | *0..<maxnoCCTrCH>* | | | GLOBAL | reject |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| **>DL DPCH information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | notify |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>DL Timeslot Information | M | | 9.2.3.4E | | – | |
| **>DL DPCH information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | notify |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>DL Timeslot Information LCR | M | | 9.2.3.4O | | – | |
| >CCTrCH Initial DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >TDD TPC DL Step Size | O | | 9.2.3.21 | | YES | reject |
| >CCTrCH Maximum DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >CCTrCH Minimum DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| **RL Information** | | *1* | | | YES | reject |
| >RL ID | M | | 9.2.1.53 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >C-ID | M | | 9.2.1.9 | | – | |
| >Frame Offset | M | | 9.2.1.31 | | – | |
| >Diversity Control Field | M | | 9.2.1.25 | | – | |
| >Initial DL Transmission Power | O | | DL Power 9.2.1.21 | | – | |
| >Maximum DL Power | O | | DL Power 9.2.1.21 | | – | |
| >Minimum DL Power | O | | DL Power 9.2.1.21 | | – | |
| >DL Time Slot ISCP Info | O | | 9.2.3.4F | Applicable to 3.84Mcps TDD only | – | |
| >DL Time Slot ISCP Info LCR | O | | 9.2.3.4P | Applicable to 1.28Mcps TDD only | YES | reject |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.24C | | YES | reject |
| **>UL Synchronisation Parameters LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >>Uplink Synchronisation Step Size | M | | 9.2.3.26H | | – | |
| >>Uplink Synchronisation Frequency | M | | 9.2.3.26G | | – | |
| HS-DSCH Information | O | | HS-DSCH TDD Information 9.2.3.5F | | YES | reject |
| HS-DSCH-RNTI | C-HSDSCH RadioLink | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.53 | | YES | reject |

| Range Bound | Explanation |
|---|---|
| *maxnoCCTrCH* | Number of CCTrCH for one UE |

| Condition | Explanation |
|---|---|
| C-HSDSCHRadioLink | The IE shall be present if *HS-PDSCH RL ID* IE is present |

# 9.1.40 RADIO LINK ADDITION RESPONSE

## 9.1.40.1 FDD message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| **RL Information Response** | | *1..<maxnoofRLs-1>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >RL Set ID | M | | 9.2.2.39 | | – | |
| >Received Total Wide Band Power | M | | 9.2.2.39A | | – | |
| >CHOICE *Diversity Indication* | M | | | | – | |
| >>*Combining* | | | | | – | |
| >>>RL ID | M | | 9.2.1.53 | Reference RL | – | |
| >>>E-DCH FDD Information Response | O | | 9.2.2.13Db | | YES | ignore |
| >>*Non Combining* | | | | | – | |
| >>>DCH Information Response | M | | 9.2.1.20C | | – | |
| >>>E-DCH FDD Information Response | O | | 9.2.2.13Db | | YES | ignore |
| >SSDT Support Indicator | M | | 9.2.2.46 | | – | |
| >DL Power Balancing Activation Indicator | O | | 9.2.2.12C | | YES | ignore |
| >E-DCH RL Set ID | O | | RL Set ID 9.2.2.39 | | YES | ignore |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.13Dc | | YES | ignore |
| >Initial DL DPCH Timing Adjustment | O | | DL DPCH Timing Adjustment 9.2.2.10A | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| HS-DSCH Serving Cell Change Information Response | O | | 9.2.2.18Ec | | YES | Ignore |
| E-DCH Serving Cell Change Information Response | O | | 9.2.2.18Ed | | YES | Ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

### 9.1.40.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| **RL Information Response** | | *0..1* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | YES | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >UL Time Slot ISCP Info | M | | 9.2.3.26D | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.26B | | – | |
| **>DCH Information** | | *0..1* | | | – | |
| >>CHOICE *Diversity Indication* | M | | | | – | |
| *>>>Combining* | | | | Indicates whether the old Transport Bearer shall be reused or not | – | |
| >>>>RL ID | M | | 9.2.1.53 | Reference RL | – | |
| *>>>Non Combining* | | | | | – | |
| >>>>DCH Information Response | M | | 9.2.1.20C | | – | |
| >DSCH Information Response | O | | 9.2.3.5b | | YES | ignore |
| >USCH Information Response | O | | 9.2.3.29 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| **RL Information Response LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >UL Time Slot ISCP Info LCR | M | | 9.2.3.26F | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.26B | | – | |
| **>DCH Information** | | *0..1* | | | – | |
| >>CHOICE *Diversity indication* | M | | | | – | |
| *>>>Combining* | | | | Indicates whether the old Transport Bearer shall be reused or not | – | |
| >>>>RL ID | M | | 9.2.1.53 | Reference RL | – | |
| *>>>Non Combining* | | | | | – | |
| >>>>DCH Information Response | M | | 9.2.1.20C | | – | |
| >DSCH Information Response | O | | 9.2.3.5b | | YES | ignore |
| >USCH Information Response | O | | 9.2.3.29 | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| HS-DSCH Information Response | O | | HS-DSCH TDD Information Response 9.2.3.5G | | YES | ignore |

## 9.1.41 RADIO LINK ADDITION FAILURE

### 9.1.41.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.6 | | – | |
| *>RL Specific* | | | | | – | |
| **>>Unsuccessful RL Information Response** | | *1..<maxnoofRLs-1>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| **>>Successful RL Information Response** | | *0..<maxnoofRLs-2>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>RL Set ID | M | | 9.2.2.39 | | – | |
| >>> Received Total Wide Band Power | M | | 9.2.2.39A | | – | |
| >>>CHOICE *Diversity Indication* | M | | | | – | |
| *>>>>Combining* | | | | | – | |
| >>>>>RL ID | M | | 9.2.1.53 | Reference RL | – | |
| >>>>>E-DCH FDD Information Response | O | | 9.2.2.13Db | | YES | ignore |
| *>>>>Non Combining* | | | | | – | |
| >>>>>DCH Information Response | M | | 9.2.1.20C | | – | |
| >>>>>E-DCH FDD Information Response | O | | 9.2.2.13Db | | YES | ignore |
| >>>SSDT Support Indicator | M | | 9.2.2.46 | | – | |
| >>>DL Power Balancing Activation Indicator | O | | 9.2.2.12C | | YES | ignore |
| >>>E-DCH RL Set ID | O | | RL Set ID 9.2.2.39 | | YES | ignore |
| >>>E-DCH FDD DL Control Channel Information | O | | 9.2.2.13Dc | | YES | ignore |
| >>>Initial DL DPCH Timing Adjustment | O | | DL DPCH Timing Adjustment 9.2.2.10A | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| HS-DSCH Serving Cell Change Information Response | O | | 9.2.2.18Ec | | YES | Ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| E-DCH Serving Cell Change Information Response | O | | 9.2.2.18Ed | | YES | Ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

### 9.1.41.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.6 | | – | |
| *>RL Specific* | | | | | – | |
| **>>Unsuccessful RL Information Response** | | *1* | | | YES | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.42 RADIO LINK RECONFIGURATION PREPARE

### 9.1.42.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | reject |
| **UL DPCH Information** | | *0..1* | | | YES | reject |
| >UL Scrambling Code | O | | 9.2.2.59 | | – | |
| >UL SIR Target | O | | UL SIR 9.2.1.67A | | – | |
| >Min UL Channelistion Code Length | O | | 9.2.2.22 | | – | |
| >Max Number of UL DPDCHs | C-CodeLen | | 9.2.2.21 | | – | |
| >Puncture Limit | O | | 9.2.1.50 | For UL | – | |
| >TFCS | O | | 9.2.1.58 | | – | |
| >UL DPCCH Slot Format | O | | 9.2.2.57 | | – | |
| >Diversity Mode | O | | 9.2.2.9 | | – | |
| >Not Used | O | | NULL | | – | |
| >Not Used | O | | NULL | | – | |
| >UL DPDCH Indicator For E-DCH Operation | O | | 9.2.2.61 | | YES | reject |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.58 | | – | |
| >DL DPCH Slot Format | O | | 9.2.2.10 | | – | |
| >TFCI Signalling Mode | O | | 9.2.2.50 | | – | |
| >TFCI Presence | C-SlotFormat | | 9.2.1.57 | | – | |
| >Multiplexing Position | O | | 9.2.2.23 | | – | |
| >Not Used | O | | NULL | | – | |
| >Not Used | O | | NULL | | – | |
| >Limited Power Increase | O | | 9.2.2.18A | | – | |
| **>DL DPCH Power Information** | | *0..1* | | | YES | reject |
| **>>Power Offset Information** | | *1* | | | – | |
| >>>PO1 | M | | Power Offset 9.2.2.29 | Power offset for the TFCI bits | – | |
| >>>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits | – | |
| >>>PO3 | M | | Power Offset 9.2.2.29 | Power offset for the pilot bits | – | |
| >>FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >>Inner Loop DL PC Status | M | | 9.2.2.18B | | – | |
| DCHs To Modify | O | | DCHs FDD To Modify 9.2.2.4E | | YES | reject |
| DCHs To Add | O | | DCH FDD Information | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | 9.2.2.4D | | | |
| **DCHs To Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.20 | | – | |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | reject |
| >RL ID | M | | 9.2.1.53 | | – | |
| >DL Code Information | O | | FDD DL Code Information 9.2.2.14A | | – | |
| >Maximum DL Power | O | | DL Power 9.2.1.21 | Maximum allowed power on DPCH or on F-DPCH | – | |
| >Minimum DL Power | O | | DL Power 9.2.1.21 | Minimum allowed power on DPCH or on F-DPCH | – | |
| >Not Used | O | | NULL | | – | |
| >Not Used | O | | NULL | | – | |
| >Transmit Diversity Indicator | C-Diversity mode | | 9.2.2.53 | | – | |
| >DL Reference Power | O | | DL Power 9.2.1.21 | Power on DPCH or on F-DPCH | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >DL DPCH Timing Adjustment | O | | 9.2.2.10A | Required RL Timing Adjustment | YES | reject |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.33A | | YES | ignore |
| >Secondary CPICH Information Change | O | | 9.2.2.43A | | YES | ignore |
| >E-DCH RL Indication | O | | 9.2.2.13De | | YES | reject |
| >RL Specific E-DCH Information | O | | 9.2.2.39a | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.53A | | YES | reject |
| Signalling Bearer Request Indicator | O | | 9.2.1.55A | | YES | reject |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.18D | | YES | reject |
| HS-DSCH Information To Modify | O | | 9.2.1.31H | | YES | reject |
| HS-DSCH MAC-d Flows To Add | O | | HS-DSCH MAC-d Flows Information 9.2.1.31IA | | YES | reject |
| HS-DSCH MAC-d Flows To Delete | O | | 9.2.1.31IB | | YES | reject |
| HS-DSCH-RNTI | C-HSDSCH RadioLink | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.53 | | YES | reject |
| **E-DPCH Information** | | *0..1* | | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| >Maximum Set of E-DPDCHs | O | | 9.2.2.20C | | – | |
| >Puncture Limit | O | | 9.2.1.50 | | – | |
| >E-TFCS Information | O | | 9.2.2.13Dh | | – | |
| >E-TTI | O | | 9.2.2.13Di | | – | |
| >E-DPCCH Power Offset | O | | 9.2.2.13Dj | | – | |
| >E-RGCH 2-Index-Step Threshold | O | | 9.2.2.13Ig | | – | |
| >E-RGCH 3-Index-Step Threshold | O | | 9.2.2.13Ih | | – | |
| >HARQ Info for E-DCH | O | | 9.2.2.18ba | | – | |
| >HS-DSCH Configured Indicator | O | | 9.2.2.18Ca | | – | |
| E-DCH FDD Information | O | | E-DCH FDD Information 9.2.2.13Da | | YES | reject |
| E-DCH FDD Information To Modify | O | | 9.2.2.13Df | | YES | reject |
| E-DCH MAC-d Flows To Add | O | | E-DCH MAC-d Flows Information 9.2.2.13M | | YES | reject |
| E-DCH MAC-d Flows To Delete | O | | 9.2.2.13N | | YES | reject |
| Serving E-DCH RL | O | | 9.2.2.48B | | YES | reject |
| **F-DPCH Information** | | *0..1* | | | YES | reject |
| **>Power Offset Information** | | *1* | | | – | |
| >>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits | – | |
| >FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.18A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.18B | | – | |

| Condition | Explanation |
|---|---|
| CodeLen | The IE shall be present if the *Min UL Channelisation Code Length* IE is equals to 4. |
| SlotFormat | The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if the *Diversity Mode* IE is present in the *UL DPCH Information* IEand is not set to "none". |
| HSDSCHRadio Link | The IE shall be present if *HS-PDSCH RL ID* IE is present. |
| EDPCHInfo | This IE shall be present if *E-DPCH Information* IE is present. |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for a UE |
| *maxnoofRLs* | Maximum number of RLs for a UE |

### 9.1.42.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | reject |
| **UL CCTrCH To Add** | | *0..<maxnoofCCTrCHs>* | | | GLOBAL | reject |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| >TFCS | M | | 9.2.1.58 | | – | |
| >TFCI Coding | M | | 9.2.3.22 | | – | |
| >Puncture Limit | M | | 9.2.1.50 | | – | |
| **>UL DPCH To Add Per RL** | | *0..<maxnoofRLs>* | | See note 1 below | – | |
| **>>UL DPCH Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | reject |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>>UL Timeslot Information | M | | 9.2.3.26C | | – | |
| **>>UL DPCH Information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | reject |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>>UL Timeslot Information LCR | M | | 9.2.3.26E | | – | |
| >>UL SIR Target | O | | UL SIR 9.2.1.67A | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD | YES | reject |
| >>TDD TPC UL Step Size | O | | 9.2.3.21a | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >>RL ID | O | | 9.2.1.53 | | YES | ignore |
| **UL CCTrCH To Modify** | | *0..<maxnoofCCTrCHs>* | | | GLOBAL | reject |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| >TFCS | O | | 9.2.1.58 | | – | |
| >TFCI Coding | O | | 9.2.3.22 | | – | |
| >Puncture Limit | O | | 9.2.1.50 | | – | |
| **>UL DPCH To Modify Per RL** | | *0..<maxnoofRLs>* | | See note 1 below | – | |
| **>>UL DPCH To Add** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | reject |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>>UL Timeslot Information | M | | 9.2.3.26C | | – | |
| **>>UL DPCH To Modify** | | *0..1* | | | YES | reject |
| >>>Repetition Period | O | | 9.2.3.16 | | – | |
| >>>Repetition Length | O | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | O | | 9.2.3.19A | | – | |
| **>>>UL Timeslot Information** | | *0..<maxnoofULts>* | | Applicable to 3.84Mcps TDD only | – | |
| >>>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>>Midamble Shift And Burst Type | O | | 9.2.3.7 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.57 | | – | |
| **>>>>UL Code Information** | | *0..<maxnoofDPCHs>* | | | – | |
| >>>>>DPCH ID | M | | 9.2.3.5 | | – | |
| >>>>>TDD Channelisation Code | O | | 9.2.3.19 | | – | |
| **>>>UL Timeslot Information LCR** | | *0..<maxnoofULtsLCR>* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>Midamble Shift LCR | O | | 9.2.3.7A | | | |
| >>>>TFCI Presence | O | | 9.2.1.57 | | – | |
| **>>>>UL Code Information LCR** | | *0..<maxnoOfDPCHLCR>* | | | – | |
| >>>>>DPCH ID | M | | 9.2.3.5 | | – | |
| >>>>>TDD Channelisation Code LCR | O | | 9.2.3.19a | | – | |
| >>>>> TDD UL DPCH Time Slot Format LCR | O | | 9.2.3.21C | | YES | reject |
| **>>UL DPCH To Delete** | | *0..<maxnoofDPCHs>* | | | GLOBAL | reject |
| >>>DPCH ID | M | | 9.2.3.5 | | – | |
| **>>UL DPCH To Add LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | reject |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>>UL Timeslot Information LCR | M | | 9.2.3.26E | | – | |
| >>UL SIR Target | O | | UL SIR 9.2.1.67A | Applicable to 1.28Mcps TDD only | YES | reject |
| >>TDD TPC UL Step Size | O | | 9.2.3.21a | Applicable to 1.28Mcps TDD only | YES | reject |
| >>RL ID | O | | 9.2.1.53 | | YES | ignore |
| **UL CCTrCH To Delete** | | *0..<maxnoofCCTrCHs>* | | | GLOBAL | reject |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| **DL CCTrCH To Add** | | *0..<maxnoofCCTrCHs>* | | | GLOBAL | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| >TFCS | M | | 9.2.1.58 | | – | |
| >TFCI Coding | M | | 9.2.3.22 | | – | |
| >Puncture Limit | M | | 9.2.1.50 | | – | |
| **>TPC CCTrCH List** | | *0..<maxnoofCCTrCHs>* | | List of uplink CCTrCH which provide TPC | – | |
| >>TPC CCTrCH ID | M | | CCTrCH ID 9.2.3.3 | | – | |
| **>DL DPCH To Add Per RL** | | *0..<maxnoofRLs>* | | See Note 1 below | – | |
| **>>DL DPCH Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | reject |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>>DL Timeslot Information | M | | 9.2.3.4E | | – | |
| **>>DL DPCH Information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | reject |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>>DL Timeslot Information LCR | M | | 9.2.3.4O | | – | |
| >>CCTrCH Initial DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >>TDD TPC DL Step Size | O | | 9.2.3.21 | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>CCTrCH Maximum DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >>CCTrCH Minimum DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >>RL ID | O | | 9.2.1.53 | | YES | ignore |
| **DL CCTrCH To Modify** | | *0..<maxnoofCCTrCHs>* | | | GLOBAL | reject |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| >TFCS | O | | 9.2.1.58 | | – | |
| >TFCI Coding | O | | 9.2.3.22 | | – | |
| >Puncture Limit | O | | 9.2.1.50 | | – | |
| **>TPC CCTrCH List** | | *0..<maxnoofCCTrCHs>* | | List of uplink CCTrCH which provide TPC | – | |
| >>TPC CCTrCH ID | M | | CCTrCH ID 9.2.3.3 | | – | |
| **>DL DPCH To Modify Per RL** | | *0..<maxnoofRLs>* | | See Note 1 below | – | |
| **>>DL DPCH To Add** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | reject |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>>DL Timeslot Information | M | | 9.2.3.4E | | – | |
| **>>DL DPCH To Modify** | | *0..1* | | | YES | reject |
| >>>Repetition Period | O | | 9.2.3.16 | | – | |
| >>>Repetition Length | O | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | O | | 9.2.3.19A | | – | |
| **>>>DL Timeslot Information** | | *0..<maxnoofDLts>* | | Applicable to 3.84Mcps TDD only | – | |
| >>>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>>Midamble Shift And Burst Type | O | | 9.2.3.7 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.57 | | – | |
| **>>>>DL Code Information** | | *0..<maxnoofDPCHs>* | | | – | |
| >>>>>DPCH ID | M | | 9.2.3.5 | | – | |
| >>>>>TDD Channelisation Code | O | | 9.2.3.19 | | – | |
| **>>>DL Timeslot Information LCR** | | *0..<maxnoofDLtsLCR>* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>Midamble Shift LCR | O | | 9.2.3.7A | | | |
| >>>>TFCI Presence | O | | 9.2.1.57 | | – | |
| **>>>>DL Code Information LCR** | | *0..<maxnoofDPCHsLCR>* | | | – | |
| >>>>>DPCH ID | M | | 9.2.3.5 | | – | |
| >>>>>TDD Channelisation Code LCR | O | | 9.2.3.19a | | – | |
| >>>>>TDD DL DPCH Time Slot Format LCR | O | | 9.2.3.19D | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>>Maximum DL Power to Modify LCR | O | | DL Power 9.2.1.21 | Maximum allowed power on DPCH | YES | ignore |
| >>>>Minimum DL Power to Modify LCR | O | | DL Power 9.2.1.21 | Minimum allowed power on DPCH | YES | ignore |
| **>>DL DPCH To Delete** | | *0..<maxnoofDPCHs>* | | | GLOBAL | reject |
| >>>DPCH ID | M | | 9.2.3.5 | | – | |
| **>>DL DPCH To Add LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | reject |
| >>>Repetition Period | M | | 9.2.3.16 | | – | |
| >>>Repetition Length | M | | 9.2.3.15 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.19A | | – | |
| >>>DL Timeslot Information LCR | M | | 9.2.3.4O | | – | |
| >>TDD TPC DL Step Size | O | | 9.2.3.21 | | YES | reject |
| >>Maximum CCTrCH DL Power to Modify | O | | DL Power 9.2.1.21 | | YES | ignore |
| >>Minimum CCTrCH DL Power to Modify | O | | DL Power 9.2.1.21 | | YES | ignore |
| >>RL ID | O | | 9.2.1.53 | | YES | ignore |
| **DL CCTrCH To Delete** | | *0..<maxnoofCCTrCHs>* | | | GLOBAL | reject |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| DCHs To Modify | O | | DCHs TDD To Modify 9.2.3.4D | | YES | reject |
| DCHs To Add | O | | DCH TDD Information 9.2.3.4C | | YES | reject |
| **DCHs To Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.20 | | – | |
| **DSCH To Modify** | | *0..<maxnoofDSCHs>* | | | GLOBAL | reject |
| >DSCH ID | M | | 9.2.3.5a | | – | |
| >CCTrCH ID | O | | 9.2.3.3 | DL CCTrCH in which the DSCH is mapped | – | |
| >Transport Format Set | O | | 9.2.1.59 | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1A | | – | |
| >Frame Handling Priority | O | | 9.2.1.30 | | – | |
| >ToAWS | O | | 9.2.1.61 | | – | |
| >ToAWE | O | | 9.2.1.60 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.62A | | – | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| DSCH To Add | O | | DSCH TDD Information | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | 9.2.3.5A | | | |
| **DSCH To Delete** | | *0..<maxnoofDSCHs>* | | | GLOBAL | reject |
| >DSCH ID | M | | 9.2.3.5a | | – | |
| **USCH To Modify** | | *0..<maxnoofUSCHs>* | | | GLOBAL | reject |
| >USCH ID | M | | 9.2.3.27 | | – | |
| >Transport Format Set | O | | 9.2.1.59 | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1A | | – | |
| >CCTrCH ID | O | | 9.2.3.3 | UL CCTrCH in which the USCH is mapped | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.62A | | – | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >TNL QoS | O | | 9.2.1.58A | | YES | ignore |
| USCH To Add | O | | USCH Information 9.2.3.28 | | YES | reject |
| **USCH To Delete** | | *0..<maxnoofUSCHs>* | | | GLOBAL | reject |
| >USCH ID | M | | 9.2.3.27 | | – | |
| **RL Information** | | *0..<maxnoofRLs>* | | See Note 1 below | YES | reject |
| >RL ID | M | | 9.2.1.53 | | – | |
| >Maximum Downlink Power | O | | DL Power 9.2.1.21 | | – | |
| >Minimum Downlink Power | O | | DL Power 9.2.1.21 | | – | |
| >Initial DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| **>UL Synchronisation Parameters LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >>Uplink Synchronisation Step Size | M | | 9.2.3.26H | | – | |
| >>Uplink Synchronisation Frequency | M | | 9.2.3.26G | | – | |
| >DL Time Slot ISCP Info LCR | O | | 9.2.3.4P | Applicable to 1.28Mcps TDD only | YES | ignore |
| Signalling Bearer Request Indicator | O | | 9.2.1.55A | | YES | reject |
| HS-DSCH Information | O | | HS-DSCH TDD Information 9.2.3.5F | | YES | reject |
| HS-DSCH Information To | O | | 9.2.1.31H | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| Modify | | | | | | |
| HS-DSCH MAC-d Flows To Add | O | | HS-DSCH MAC-d Flows Information 9.2.1.31IA | | YES | reject |
| HS-DSCH MAC-d Flows To Delete | O | | 9.2.1.31IB | | YES | reject |
| HS-DSCH-RNTI | C-HSDSCH RadioLink | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.53 | | YES | reject |
| PDSCH-RL-ID | O | | RL ID 9.2.1.53 | | YES | ignore |

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities.

| Condition | Explanation |
|---|---|
| HSDSCHRadio Link | The IE shall be present if *HS-PDSCH RL ID* IE is present. |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for a UE |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE |
| *maxnoofDPCHs* | Maximum number of DPCHs in one CCTrCH for 3.84Mcps TDD |
| *maxnoofDPCHsLCR* | Maximum number of DPCHs in one CCTrCH for 1.28Mcps TDD |
| *maxnoofDSCHs* | Maximum number of DSCHs for one UE |
| *maxnoofUSCHs* | Maximum number of USCHs for one UE |
| *maxnoofDLts* | Maximum number of Downlink time slots per Radio Link for 3.84Mcps TDD |
| *maxnoofDLtsLCR* | Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD |
| *maxnoofULts* | Maximum number of Uplink time slots per Radio Link for 3.84Mcps TDD |
| *maxnoofULtsLCR* | Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD |
| *maxnoofRLs* | Maximum number of RLs for one UE |

## 9.1.43 RADIO LINK RECONFIGURATION READY

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| **RL Information Response** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >DCH Information Response | O | | 9.2.1.20C | | YES | ignore |
| >DSCH Information Response | O | | 9.2.3.5b | TDD only | YES | ignore |
| >USCH Information Response | O | | 9.2.3.29 | TDD only | YES | ignore |
| >Not Used | O | | NULL | | – | |
| >DL Power Balancing Updated Indicator | O | | 9.2.2.12D | | YES | ignore |
| >E-DCH RL Set ID | O | | RL Set ID 9.2.2.39 | | YES | ignore |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.13Dc | | YES | ignore |
| >E-DCH FDD Information Response | O | | 9.2.2.13Db | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| Target Communication Control Port ID | O | | Communication Control Port ID 9.2.1.15 | | YES | ignore |
| HS-DSCH FDD Information Response | O | | 9.2.2.18E | FDD only | YES | ignore |
| HS-DSCH TDD Information Response | O | | 9.2.3.5G | TDD only | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for a UE |

## 9.1.44 RADIO LINK RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.6 | | YES | ignore |
| *>RL Specific* | | | | | – | |
| **>>RLs Causing Reconfiguration Failure** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for a UE |

## 9.1.45 RADIO LINK RECONFIGURATION COMMIT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | ignore |
| CFN | M | | 9.2.1.7 | | YES | ignore |
| Active Pattern Sequence Information | O | | 9.2.2.A | FDD only | YES | ignore |

## 9.1.46 RADIO LINK RECONFIGURATION CANCEL

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | ignore |

# 9.1.47 RADIO LINK RECONFIGURATION REQUEST

## 9.1.47.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | reject |
| **UL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.58 | For the UL. | – | |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.58 | For the DL. | – | |
| >TFCI Signalling Mode | O | | 9.2.2.50 | | – | |
| >Limited Power Increase | O | | 9.2.2.18A | | – | |
| DCHs To Modify | O | | DCHs FDD To Modify 9.2.2.4E | | YES | reject |
| DCHs To Add | O | | DCH FDD Information 9.2.2.4D | | YES | reject |
| **DCHs To Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.20 | | – | |
| **Radio Link Information** | | *0..<maxnoofRLs>* | | | EACH | reject |
| >RL ID | M | | 9.2.1.53 | | – | |
| >Maximum DL Power | O | | DL Power 9.2.1.21 | Maximum allowed power on DPCH or on F-DPCH | – | |
| >Minimum DL Power | O | | DL Power 9.2.1.21 | Minimum allowed power on DPCH or on F-DPCH | – | |
| >DL Code Information | C-SF/2 | | FDD DL Code Information 9.2.2.14A | | – | |
| >DL Reference Power | O | | DL Power 9.2.1.21 | Power on DPCH or on F-DPCH | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >E-DCH RL Indication | O | | 9.2.2.13De | | YES | reject |
| >RL Specific E-DCH Information | O | | 9.2.2.39a | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.53A | | YES | reject |
| Signalling Bearer Request Indicator | O | | 9.2.1.55A | | YES | reject |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.18D | | YES | reject |
| HS-DSCH Information To Modify Unsynchronised | O | | 9.2.1.31HA | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| HS-DSCH MAC-d Flows To Add | O | | HS-DSCH MAC-d Flows Information 9.2.1.31IA | | YES | reject |
| HS-DSCH MAC-d Flows To Delete | O | | 9.2.1.31IB | | YES | reject |
| HS-DSCH-RNTI | C-HSDSCH RadioLink | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.53 | | YES | reject |
| **E-DPCH Information** | | *0..1* | | | YES | reject |
| >Maximum Set of E-DPDCHs | O | | 9.2.2.20C | | – | |
| >Puncture Limit | O | | 9.2.1.50 | | – | |
| >E-TFCS Information | O | | 9.2.2.13Dh | | – | |
| >E-TTI | O | | 9.2.2.13Di | | – | |
| >E-DPCCH Power Offset | O | | 9.2.2.13Dj | | – | |
| >E-RGCH 2-Index-Step Threshold | O | | 9.2.2.13Ig | | – | |
| >E-RGCH 3-Index-Step Threshold | O | | 9.2.2.13Ih | | – | |
| >HARQ Info for E-DCH | O | | 9.2.2.18ba | | – | |
| >HS-DSCH Configured Indicator | O | | 9.2.2.18Ca | | – | |
| E-DCH FDD Information | O | | E-DCH FDD Information 9.2.2.13Da | | YES | reject |
| E-DCH FDD Information To Modify | O | | 9.2.2.13Df | | YES | reject |
| E-DCH MAC-d Flows To Add | O | | E-DCH FDD MAC-d Flows Information 9.2.2.13M | | YES | reject |
| E-DCH MAC-d Flows To Delete | O | | 9.2.2.13N | | YES | reject |
| Serving E-DCH RL | O | | 9.2.2.48B | | YES | reject |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for a UE |
| *maxnoofRLs* | Maximum number of RLs for a UE |
| *maxnoofMACdFlows* | Maximum number of MAC-d Flows |
| EDPCHInfo | This IE shall be present if *E-DPCH Information* IE is present. |

| Condition | Explanation |
|---|---|
| SF/2 | The IE shall be present if the *Transmission Gap Pattern Sequence Information* IE is included and the indicated Downlink Compressed Mode method for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2". |
| HSDSCHRadio Link | The IE shall be present if *HS-PDSCH RL ID* IE is present. |

### 9.1.47.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | reject |
| **UL CCTrCH To Modify** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| >TFCS | O | | 9.2.1.58 | | – | |
| >Puncture Limit | O | | 9.2.1.50 | | – | |
| >UL SIR Target | O | | UL SIR 9.2.1.67A | Applicable to 1.28Mcps TDD only | YES | reject |
| **UL CCTrCH To Delete** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| **DL CCTrCH To Modify** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| >TFCS | O | | 9.2.1.58 | | – | |
| >Puncture Limit | O | | 9.2.1.50 | | – | |
| **>DL CCTrCH To Modify Per RL** | | 0..*<maxnoofRLs>* | | See note 1 below | | |
| >>DL DPCH To Modify LCR | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | ignore |
| >>>DL Timeslot Information LCR | | *0..<maxnoofDLtsLCR>* | | | – | |
| >>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>Maximum DL Power | O | | DL Power 9.2.1.21 | Maximum allowed power on DPCH | – | |
| >>>>Minimum DL Power | O | | DL Power 9.2.1.21 | Minimum allowed power on DPCH | – | |
| >>CCTrCH Maximum DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >>CCTrCH Minimum DL Transmission Power | O | | DL Power 9.2.1.21 | | YES | ignore |
| >>RL ID | O | | 9.2.1.53 | | YES | ignore |
| **DL CCTrCH To Delete** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.3 | | – | |
| DCHs To Modify | O | | DCHs TDD To Modify 9.2.3.4D | | YES | reject |
| DCHs To Add | O | | DCH TDD Information 9.2.3.4C | | YES | reject |
| **DCHs To Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| >DCH ID | M | | 9.2.1.20 | | – | |
| **RL Information** | | *0..<maxnoofRLs>* | | See note 1 below | YES | reject |
| >RL ID | M | | 9.2.1.53 | | – | |
| >Maximum Downlink Power | O | | DL Power 9.2.1.21 | | – | |
| >Minimum Downlink Power | O | | DL Power 9.2.1.21 | | – | |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| **>UL Synchronisation Parameters LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >>Uplink Synchronisation Step Size | M | | 9.2.3.26H | | – | |
| >>Uplink Synchronisation Frequency | M | | 9.2.3.26G | | – | |
| Signalling Bearer Request Indicator | O | | 9.2.1.55A | | YES | reject |
| HS-DSCH Information | O | | HS-DSCH TDD Information 9.2.2.18D | | YES | reject |
| HS-DSCH Information To Modify Unsynchronised | O | | 9.2.1.31HA | | YES | reject |
| HS-DSCH MAC-d Flows To Add | O | | HS-DSCH MAC-d Flows Information 9.2.1.31IA | | YES | reject |
| HS-DSCH MAC-d Flows To Delete | O | | 9.2.1.31IB | | YES | reject |
| HS-DSCH-RNTI | C-HSDSCH RadioLink | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.53 | | YES | reject |

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticality.

| Range Bound | Explanation |
|---|---|
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE |
| *maxnoofDLtsLCR* | Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD |
| *maxnoofDCHs* | Maximum number of DCHs for a UE |
| *maxnoofRLs* | Maximum number of RLs for one UE |
| *maxnoofMACdFlows* | Maximum number of MAC-d Flows |

| Condition | Explanation |
|---|---|
| HSDSCHRadio Link | The IE shall be present if *HS-PDSCH RL ID* IE is present. |

## 9.1.48 RADIO LINK RECONFIGURATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| **RL Information Response** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >DCH Information Response | O | | 9.2.1.20C | | YES | ignore |
| >DL Power Balancing Updated Indicator | O | | 9.2.2.12D | FDD only | YES | ignore |
| >E-DCH RL Set ID | O | | RL Set ID 9.2.2.39 | | YES | ignore |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.13Dc | | YES | ignore |
| >E-DCH FDD Information Response | O | | 9.2.2.13Db | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| Target Communication Control Port ID | O | | Communication Control Port ID 9.2.1.15 | | YES | ignore |
| HS-DSCH FDD Information Response | O | | 9.2.2.18E | FDD only | YES | ignore |
| HS-DSCH TDD Information Response | O | | 9.2.3.5G | TDD only | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for a UE |

## 9.1.49 RADIO LINK DELETION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | reject |
| CRNC Communication Context ID | M | | 9.2.1.18 | | YES | reject |
| **RL Information** | | *1..<maxnoofRLs>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.53 | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of radio links for one UE |

## 9.1.50 RADIO LINK DELETION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.51 DL POWER CONTROL REQUEST [FDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | ignore |
| Power Adjustment Type | M | | 9.2.2.27 | | YES | ignore |
| DL Reference Power | C-Common | | DL power 9.2.1.21 | Power on DPCH or on F-DPCH | YES | ignore |
| Inner Loop DL PC Status | O | | 9.2.2.18B | | YES | ignore |
| **DL Reference Power Information** | C-Individual | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >DL Reference Power | M | | DL power 9.2.1.21 | Power on DPCH or on F-DPCH | – | |
| Max Adjustment Step | C-CommonOrIndividual | | 9.2.2.20 | | YES | ignore |
| Adjustment Period | C-CommonOrIndividual | | 9.2.2.B | | YES | ignore |
| Adjustment Ratio | C-CommonOrIndividual | | 9.2.2.C | | YES | ignore |

| Condition | Explanation |
|---|---|
| Common | The IE shall be present if the *Adjustment Type* IE is equal to "Common". |
| Individual | The IE shall be present if the *Adjustment Type* IE is equal to "Individual". |
| CommonOrIndividual | The IE shall be present if the *Adjustment Type* IE is equal to "Common" or "Individual". |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of Radio Links for a UE |

## 9.1.52 DEDICATED MEASUREMENT INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used when the Report characteristics type is set to "On Demand". | YES | reject |
| Measurement ID | M | | 9.2.1.42 | | YES | reject |
| CHOICE *Dedicated Measurement Object Type* | M | | | | YES | reject |
| *>RL* | | | | | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | reject |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>DPCH ID | O | | 9.2.3.5 | TDD only | – | |
| **>>>PUSCH Information** | | *0..<maxnoofPUSCHs>* | | TDD only | GLOBAL | reject |
| >>>>PUSCH ID | M | | 9.2.3.12 | | – | |
| **>>>HS-SICH Information** | | *0..<maxnoofHSSICHs>* | | TDD only | GLOBAL | reject |
| >>>>HS-SICH ID | M | | 9.2.3.5Gb | | – | |
| *>RLS* | | | | FDD only | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | – | |
| >>>RL Set ID | M | | 9.2.2.39 | | – | |
| *>ALL RL* | | | NULL | | – | |
| *>ALL RLS* | | | NULL | FDD only | – | |
| Dedicated Measurement Type | M | | 9.2.1.23 | | YES | reject |
| Measurement Filter Coefficient | O | | 9.2.1.41 | | YES | reject |
| Report Characteristics | M | | 9.2.1.51 | | YES | reject |
| CFN Reporting Indicator | M | | FN Reporting Indicator 9.2.1.29B | | YES | reject |
| CFN | O | | 9.2.1.7 | | YES | reject |
| Number Of Reported Cell Portions | C-BestCellPortionsMeas | | 9.2.2.23D | FDD only | YES | reject |
| Measurement Recovery Behavior | O | | 9.2.1.43A | | YES | ignore |

| Condition | Explanation |
|---|---|
| BestCellPortionsMeas | The IE shall be present if the *Dedicated Measurement Type* IE is set to "Best Cell Portions". |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs a measurement can be started on |
| *maxnoofPUSCHs* | Maximum number of PUSCHs per RL a measurement can be started on |
| *maxnoofRLSets* | Maximum number of individual RL Sets a measurement can be started on |
| *maxnoofHSSICHs* | Maximum number of HSSICHs per RL a measurement can be started on |

## 9.1.53 DEDICATED MEASUREMENT INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | | YES | ignore |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |
| CHOICE *Dedicated Measurement Object Type* | O | | | Dedicated Measurement Object Type the measurement was initiated with | YES | ignore |
| *>RL or ALL RL* | | | | See Note 1 | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>DPCH ID | O | | 9.2.3.5 | TDD only | – | |
| >>>Dedicated Measurement Value | M | | 9.2.1.24 | | – | |
| >>>CFN | O | | 9.2.1.7 | Dedicated Measurement Time Reference | – | |
| **>>>PUSCH Information** | | *0..<maxnoofPUSCHs>* | | TDD only See note3 | GLOBAL | reject |
| >>>>PUSCH ID | M | | 9.2.3.12 | | – | |
| >>>> Dedicated Measurement Value | O | | 9.2.1.24 | | – | |
| >>>HS-SICH ID | O | | 9.2.3.5Gb | TDD only | YES | reject |
| **>>>Multiple Dedicated Measurement Value Information** | | *0..<maxnoofDPCHsPerRL-1>* | | Applicable to 3.84Mcps TDD only | GLOBAL | ignore |
| >>>>DPCH ID | M | | 9.2.3.5 | | – | |
| >>>>Dedicated Measurement Value | M | | 9.2.1.24 | | – | |
| **>>>Multiple Dedicated Measurement Value Information LCR** | | *0..<maxnoofDPCHsLCRPerRL-1>* | | Applicable to 1.28McpsTDD only | GLOBAL | ignore |
| >>>>DPCH ID | M | | 9.2.3.5 | | – | |
| >>>>Dedicated Measurement Value | M | | 9.2.1.24 | | – | |
| **>>>Multiple HS-SICH Measurement Value Information** | | *0..<maxnoofHSSICHs -1>* | | TDD only | GLOBAL | ignore |
| >>>>HS-SICH ID | M | | 9.2.3.5Gb | | – | |
| >>>>Dedicated Measurement Value | M | | 9.2.1.24 | | – | |
| *>RLS or ALL RLS* | | | | FDD only See Note 2 | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.39 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>Dedicated Measurement Value | M | | 9.2.1.24 | | – | |
| >>>CFN | O | | 9.2.1.7 | Dedicated Measurement Time Reference | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |
| Measurement Recovery Support Indicator | O | | 9.2.1.43C | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs the measurement can be started on |
| *maxnoofPUSCHs* | Maximum number of PUSCHs per RL a measurement can be started on |
| *maxnoofRLSets* | Maximum number of individual RL Sets a measurement can be started on |
| *maxnoofDPCHsPerRL* | Maximum number of DPCHs per RL a measurement can be started on for 3.84Mcps TDD |
| *maxnoofDPCHsLCRPerRL* | Maximum number of DPCHs per RL a measurement can be started on for 1.28Mcps TDD |
| *maxnoofHSSICHs* | Maximum number of HSSICHs per RL a measurement can be started on |

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

Note 3: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofPUSCHs are represented by separate ASN.1 structures with different criticality.

## 9.1.54 DEDICATED MEASUREMENT INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | | YES | ignore |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.55 DEDICATED MEASUREMENT REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |
| CHOICE *Dedicated Measurement Object Type* | M | | | Dedicated Measurement Object Type the measurement was initiated with | YES | ignore |
| *>RL or ALL RL* | | | | See Note 1 | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>DPCH ID | O | | 9.2.3.5 | TDD only | – | |
| >>>Dedicated Measurement Value Information | M | | 9.2.1.24A | | – | |
| **>>>PUSCH Information** | | *0..<maxnoofPUSCHs>* | | TDD only<br>See note3 | GLOBAL | reject |
| >>>>PUSCH ID | M | | 9.2.3.12 | | – | |
| >>>> Dedicated Measurement Value | O | | 9.2.1.24 | | – | |
| >>>HS-SICH ID | O | | 9.2.3.5Gb | TDD only | YES | reject |
| *>RLS or ALL RLS* | | | | FDD only<br>See Note 2 | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.39 | | – | |
| >>>Dedicated Measurement Value Information | M | | 9.2.1.24A | | – | |
| Measurement Recovery Reporting Indicator | O | | 9.2.1.43B | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs the measurement can be started on |
| *maxnoofPUSCHs* | Maximum number of PUSCHs per RL a measurement can be started on |
| *maxnoofRLSets* | Maximum number of individual RL Sets a measurement can be started on |

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

Note 3: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofPUSCHs are represented by separate ASN.1 structures with different criticality.

## 9.1.56 DEDICATED MEASUREMENT TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC" shall be used if this value was used when initiating the measurement. Otherwise, the reserved value "All NBCC" shall not be used. | YES | ignore |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |

## 9.1.57 DEDICATED MEASUREMENT FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall be used if the Node B Communication Context ID was set to "All NBCC" when initiating the measurement. Otherwise, the reserved value "All CRNCCC" shall not be used. | YES | ignore |
| Measurement ID | M | | 9.2.1.42 | | YES | ignore |
| Cause | M | | 9.2.1.6 | | YES | ignore |

## 9.1.58 RADIO LINK FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| CHOICE *Reporting Object* | M | | | Object for which the Failure shall be reported. | YES | ignore |
| *>RL* | | | | | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| *>RL Set* | | | | FDD only | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.39 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| *>CCTrCH* | | | | TDD only | – | |
| >>RL ID | M | | 9.2.1.53 | | – | |
| **>>CCTrCH List** | | *1..<maxnoofCCTrCHs>* | | | EACH | ignore |
| >>>CCTrCH ID | M | | 9.2.3.3 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |
| *maxnoofRLSets* | Maximum number of RL Sets for one UE |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE |

## 9.1.59 RADIO LINK RESTORE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| CHOICE *Reporting Object* | M | | | Object for which the Restoration shall be reported. | YES | ignore |
| *>RL* | | | | TDD only | – | |
| **>>Radio Link Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| *>RL Set* | | | | FDD only | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.39 | | – | |
| *>CCTrCH* | | | | TDD only | – | |
| >>RL ID | M | | 9.2.1.53 | | – | |
| **>>CCTrCH List** | | *1..<maxnoofCCTrCHs>* | | | EACH | ignore |
| >>>CCTrCH ID | M | | CCTrCH ID 9.2.3.3 | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |
| *maxnoofRLSets* | Maximum number of RL Sets for one UE |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE |

## 9.1.60 COMPRESSED MODE COMMAND [FDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | ignore |
| Active Pattern Sequence Information | M | | 9.2.2.A | | YES | ignore |

## 9.1.61 ERROR INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | O | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| Node B Communication Context ID | O | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | ignore |
| Cause | O | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.62 PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST

### 9.1.62.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| SFN | O | | 9.2.1.53A | | YES | reject |
| HS-PDSCH, HS-SCCH,E-AGCH, E-RGCH and E-HICH Total Power | O | | Maximum Transmission Power 9.2.1.40 | Maximum transmission power to be allowed for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes | YES | reject |
| HS-PDSCH And HS-SCCH Scrambling Code | O | | DL Scrambling Code 9.2.2.13 | Scrambling code on which HS-PDSCH and HS-SCCH is transmitted. 0= Primary scrambling code of the cell 1…15 = Secondary scrambling code | YES | reject |
| HS-PDSCH FDD Code Information | O | | 9.2.2.18F | | YES | reject |
| HS-SCCH FDD Code Information | O | | 9.2.2.18G | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| E-AGCH And E-RGCH/E-HICH FDD Scrambling Code | O | | DL Scrambling Code 9.2.2.13 | Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted. 0= Primary scrambling code of the cell 1…15 = Secondary scrambling code | YES | reject |
| E-AGCH Code FDD Information | O | | 9.2.2.13Ib | | YES | reject |
| E-RGCH/E-HICH Code FDD Information | O | | 9.2.2.13Ia | | YES | reject |
| **HSDPA And E-DCH Cell Portion Information** | | *0..<maxNoofCellPortions>* | | | GLOBAL | reject |
| >Cell Portion ID | M | | 9.2.2.1Ca | | – | |
| >HS-PDSCH And HS-SCCH Scrambling Code | O | | DL Scrambling Code 9.2.2.13 | Scrambling code on which HS-PDSCH and HS-SCCH is transmitted over cell portion. | – | |
| >HS-PDSCH FDD Code Information | O | | 9.2.2.18F | | – | |
| >HS-SCCH FDD Code Information | O | | 9.2.2.18G | | – | |
| >HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH Total Power | O | | Maximum Transmission Power 9.2.1.40 | Maximum transmission power to be allowed for HS-PDSCH, HS-SCCH and E-AGCH, E-RGCH and E-HICH codes over cell portion | – | |
| >E-AGCH And E-RGCH/E-HICH FDD Scrambling Code | O | | DL Scrambling Code 9.2.2.13 | Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted over cell portion. | – | |
| >E-AGCH Code FDD Information | O | | 9.2.2.13Ib | | – | |
| >E-RGCH/E-HICH Code FDD Information | O | | 9.2.2.13Ia | | – | |
| Maximum Target Received Total Wide Band Power | O | | 9.2.2.21a | | YES | reject |
| Reference Received Total Wide Band Power | O | | 9.2.2.39B | | YES | Ignore |
| Target Non-serving E-DCH to Total E-DCH Power ratio | O | | 9.2.2.21b | | YES | reject |

| Range Bound | Explanation |
|---|---|
| *MaxNoofCellPortions* | Maximum number of Cell Portions in a cell |

### 9.1.62.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| SFN | O | | 9.2.1.53A | | YES | reject |
| **PDSCH Sets To Add** | | *0..<maxnoofPDSCHSets>* | | | GLOBAL | reject |
| >PDSCH Set ID | M | | 9.2.3.11 | | – | |
| **>PDSCH To Add Information** | | *0..1* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | YES | reject |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| **>>DL Timeslot Information** | | *1..<maxnoofDLts>* | | | – | |
| >>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| >>>TFCI Presence | M | | 9.2.1.57 | | – | |
| **>>>DL Code Information** | | *1..<maxnoofPDSCHs>* | | | – | |
| >>>>PDSCH ID | M | | 9.2.3.10 | | – | |
| >>>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| **>PDSCH To Add Information LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| **>>DL Timeslot Information LCR** | | *1..<maxnoofDLtsLCR>* | | | – | |
| >>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>>TFCI Presence | M | | 9.2.1.57 | | – | |
| **>>>DL Code Information LCR** | | *1..<maxnoofPDSCHs>* | | | – | |
| >>>>PDSCH ID | M | | 9.2.3.10 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>>TDD Channelisation Code LCR | M | | 9.2.3.19a | | – | |
| >>>> TDD DL DPCH Time Slot Format LCR | O | | 9.2.3.19D | | YES | reject |
| >>TSTD Indicator | O | | 9.2.1.64 | | YES | reject |
| **PDSCH Sets To Modify** | | *0..<maxnoofPDSCHSets>* | | | GLOBAL | reject |
| >PDSCH Set ID | M | | 9.2.3.11 | | – | |
| >CHOICE *HCR or LCR* | M | | | See note 1 below | – | |
| *>>3.84Mcps TDD* | | | | | – | |
| **>>>PDSCH To Modify Information** | | *1* | | | YES | reject |
| >>>>Repetition Period | O | | 9.2.3.16 | | – | |
| >>>>Repetition Length | O | | 9.2.3.15 | | – | |
| >>>>TDD Physical Channel Offset | O | | 9.2.3.20 | | – | |
| **>>>>DL Timeslot Information** | | *0..<maxnofDLts>* | | | – | |
| >>>>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>>>Midamble Shift And Burst Type | O | | 9.2.3.7 | | – | |
| >>>>>TFCI Presence | O | | 9.2.1.57 | | – | |
| **>>>>>DL Code Information** | | *0..<maxnofPDSCHs>* | | | – | |
| >>>>>>PDSCH ID | M | | 9.2.3.10 | | – | |
| >>>>>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| *>>1.28Mcps TDD* | | | | | – | |
| **>>>PDSCH To Modify Information LCR** | | *1* | | | YES | reject |
| >>>>Repetition Period | O | | 9.2.3.16 | | – | |
| >>>>Repetition Length | O | | 9.2.3.15 | | – | |
| >>>>TDD Physical Channel Offset | O | | 9.2.3.20 | | – | |
| **>>>>DL Timeslot Information LCR** | | *0..<maxnofDLtsLCR>* | | | - | |
| >>>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>>Midamble Shift LCR | O | | 9.2.3.7A | | – | |
| >>>>>TFCI Presence | O | | 9.2.1.57 | | – | |
| **>>>>>DL Code Information LCR** | | *0..<maxnofPDSCHs>* | | | - | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>>>>PDSCH ID | M | | 9.2.3.10 | | – | |
| >>>>>>TDD Channelisation Code LCR | M | | 9.2.3.19a | | – | |
| >>>>>> TDD DL DPCH Time Slot Format LCR | O | | 9.2.3.19D | | YES | reject |
| **PDSCH Sets To Delete** | | *0..<maxnoofPDSCHSets>* | | | GLOBAL | reject |
| >PDSCH Set ID | M | | 9.2.3.11 | | – | |
| **PUSCH Sets To Add** | | *0..<maxnoofPUSCHSets>* | | | GLOBAL | reject |
| >PUSCH Set ID | M | | 9.2.3.13 | | – | |
| **>PUSCH To Add Information** | | *0..1* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | YES | reject |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| **>>UL Timeslot Information** | | *1..<maxnofULts>* | | | – | |
| >>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| >>>TFCI Presence | M | | 9.2.1.57 | | – | |
| **>>>UL Code Information** | | *1..<maxnofPUSCHs>* | | | – | |
| >>>>PUSCH ID | M | | 9.2.3.12 | | – | |
| >>>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| **>PUSCH To Add Information LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | reject |
| >>Repetition Period | M | | 9.2.3.16 | | – | |
| >>Repetition Length | M | | 9.2.3.15 | | – | |
| >>TDD Physical Channel Offset | M | | 9.2.3.20 | | – | |
| **>>UL Timeslot Information LCR** | | *1..<maxnofULtsLCR>* | | | – | |
| >>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>>TFCI Presence | M | | 9.2.1.57 | | – | |
| **>>>UL Code Information LCR** | | *1..<maxnofPUSCHsLCR>* | | | – | |
| >>>>PUSCH ID | M | | 9.2.3.12 | | – | |
| >>>>TDD Channelisation Code LCR | M | | 9.2.3.19a | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>>TDD UL DPCH Time Slot Format LCR | O | | 9.2.3.21C | | YES | reject |
| **PUSCH Sets To Modify** | | *0..<maxnoof PUSCHSets>* | | | GLOBAL | reject |
| >PUSCH Set ID | M | | 9.2.3.13 | | – | |
| >CHOICE *HCR or LCR* | M | | | See note 1 below | – | |
| *>>3.84Mcps TDD* | | | | | – | |
| **>>>PUSCH To Modify Information** | | *1* | | | YES | reject |
| >>>>Repetition Period | O | | 9.2.3.16 | | – | |
| >>>>Repetition Length | O | | 9.2.3.15 | | – | |
| >>>>TDD Physical Channel Offset | O | | 9.2.3.20 | | – | |
| **>>>>UL Timeslot Information** | | *0..<maxnoofULts>* | | | – | |
| >>>>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>>>Midamble Shift And Burst Type | O | | 9.2.3.7 | | – | |
| >>>>>TFCI Presence | O | | 9.2.1.57 | | – | |
| **>>>>>UL Code Information** | | *0..<maxnoofPUSCHs>* | | | – | |
| >>>>>>PUSCH ID | M | | 9.2.3.12 | | – | |
| >>>>>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| *>>1.28Mcps TDD* | | | | | – | |
| **>>>PUSCH To Modify Information LCR** | | *1* | | | YES | reject |
| >>>>Repetition Period | O | | 9.2.3.16 | | – | |
| >>>>Repetition Length | O | | 9.2.3.15 | | – | |
| >>>>TDD Physical Channel Offset | O | | 9.2.3.20 | | – | |
| **>>>>UL Timeslot Information LCR** | | *0..<maxnoofULtsLCR>* | | | – | |
| >>>>>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>>>>Midamble Shift LCR | O | | 9.2.3.7A | | – | |
| >>>>>TFCI Presence | O | | 9.2.1.57 | | – | |
| **>>>>>UL Code Information LCR** | | *0..<maxnoofPUSCHsLCR>* | | | – | |
| >>>>>>PUSCH ID | M | | 9.2.3.12 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>>>>TDD Channelisation Code LCR | M | | 9.2.3.19a | | – | |
| >>>>>>TDD UL DPCH Time Slot Format LCR | O | | 9.2.3.21C | | YES | reject |
| **PUSCH Sets To Delete** | | *0..<maxnoofPUSCHSets>* | | | GLOBAL | reject |
| >PUSCH Set ID | M | | 9.2.3.13 | | – | |
| **HS-PDSCH TDD Information** | | *0..1* | | | GLOBAL | reject |
| **>DL Timeslot and Code Information** | | *0..<maxnoofDLts>* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | – | |
| >>Time Slot | M | | 9.2.3.23 | | – | |
| >>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| **>>Codes** | | *1..<maxnoofHSPDSCHs>* | | | – | |
| >>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| >>HS-PDSCH and HS-SCCH Total Power | O | | Maximum Transmission Power 9.2.1.40 | Maximum transmission power to be allowed for HS-PDSCH and HS-SCCH codes in the timeslot | YES | reject |
| **>DL Timeslot and Code Information LCR** | | *0..<maxnoofDLtsLCR>* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | – | |
| >>Time Slot LCR | M | | 9.2.3.24a | | – | |
| >>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| **>>Codes LCR** | | *1..<maxnoofHSPDSCHs>* | | | – | |
| >>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| >>HS-PDSCH and HS-SCCH Total Power | O | | Maximum Transmission Power 9.2.1.40 | Maximum transmission power to be allowed for HS-PDSCH and HS-SCCH codes in the timeslot | YES | reject |
| **Add to HS-SCCH Resource Pool** | | *0..1* | | | GLOBAL | reject |
| **>HS-SCCH Information** | | *0..<maxnoofHSSCCHs>* | | Applicable to 3.84Mcps TDD only | – | |
| >>HS-SCCH ID | M | | 9.2.3.5Ga | | – | |
| >>Time Slot | M | | 9.2.3.23 | | – | |
| >>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| >>Maximum HS-SCCH Power | M | | DL Power 9.2.1.21 | | – | |
| **>>HS-SICH Information** | | *1* | | | – | |
| >>>HS-SICH ID | M | | 9.2.3.5Gb | | – | |
| >>>Time Slot | M | | 9.2.3.23 | | – | |
| >>>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| >>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| **>HS-SCCH Information LCR** | | *0..<maxnoofHSSCCHs>* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>HS-SCCH ID | M | | 9.2.3.5Ga | | – | |
| >>Time Slot LCR | M | | 9.2.3.24a | | – | |
| >>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>First TDD Channelisation Code | M | | TDD Channelisation Code 9.2.3.19 | | – | |
| >>Second TDD Channelisation Code | M | | TDD Channelisation Code 9.2.3.19 | | – | |
| >>Maximum HS-SCCH Power | M | | DL Power 9.2.1.21 | | – | |
| **>>HS-SICH Information LCR** | | *1* | | | – | |
| >>>HS-SICH ID | M | | 9.2.3.5Gb | | – | |
| >>>Time Slot LCR | M | | 9.2.3.24a | | – | |
| >>>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| **Modify HS-SCCH Resource Pool** | | *0..1* | | | GLOBAL | reject |
| **>HS-SCCH Information** | | *0..<maxnoofHSSCCHs>* | | Applicable to 3.84Mcps TDD only | – | |
| >>HS-SCCH ID | M | | 9.2.3.5Ga | | – | |
| >>Time Slot | O | | 9.2.3.23 | | – | |
| >>Midamble Shift And Burst Type | O | | 9.2.3.7 | | – | |
| >>TDD Channelisation Code | O | | 9.2.3.19 | | – | |
| >>Maximum HS-SCCH Power | O | | DL Power 9.2.1.21 | | – | |
| **>>HS-SICH Information** | | *0..1* | | | – | |
| >>>HS-SICH ID | M | | 9.2.3.5Gb | | – | |
| >>>Time Slot | O | | 9.2.3.23 | | – | |
| >>>Midamble Shift And Burst Type | O | | 9.2.3.7 | | – | |
| >>>TDD Channelisation Code | O | | 9.2.3.19 | | – | |
| **>HS-SCCH Information LCR** | | *0..<maxnoofHSSCCHs>* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>HS-SCCH ID | M | | 9.2.3.5Ga | | – | |
| >>Time Slot LCR | O | | 9.2.3.24a | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>Midamble Shift LCR | O | | 9.2.3.7A | | – | |
| >>First TDD Channelisation Code | O | | TDD Channelisation Code 9.2.3.19 | | – | |
| >>Second TDD Channelisation Code | O | | TDD Channelisation Code 9.2.3.19 | | | |
| >>Maximum HS-SCCH Power | O | | DL Power 9.2.1.21 | | – | |
| **>>HS-SICH Information LCR** | | *0..1* | | | – | |
| >>>HS-SICH ID | M | | 9.2.3.5Gb | | – | |
| >>>Time Slot LCR | O | | 9.2.3.24a | | – | |
| >>Midamble Shift LCR | O | | 9.2.3.7A | | – | |
| >>>TDD Channelisation Code | O | | 9.2.3.19 | | – | |
| **Delete from HS-SCCH Resource Pool** | | *0..<maxno of HSSCCHs>* | | | GLOBAL | reject |
| >HS-SCCH ID | M | | 9.2.3.5Ga | | – | |
| Configuration Generation ID | O | | 9.2.1.16 | | YES | reject |

Note 1: This information element is a simplified representation of the ASN.1. The choice is in reality performed through the use of ProtocolIE-Single-Container within the ASN.1.

| Range Bound | Explanation |
|---|---|
| *maxnoofPDSCHSets* | Maximum number of PDSCH Sets in a cell. |
| *maxnoofPDSCHs* | Maximum number of PDSCH in a cell. |
| *maxnoofPUSCHSets* | Maximum number of PUSCH Sets in a cell. |
| *maxnoofPUSCHs* | Maximum number of PUSCH in a cell. |
| *maxnoofDLts* | Maximum number of Downlink time slots in a cell for 3.84Mcps TDD. |
| *maxnoofDLtsLCR* | Maximum number of Downlink time slots in a cell for 1.28Mcps TDD. |
| *maxnoofULts* | Maximum number of Uplink time slots in a cell for 3.84Mcps TDD. |
| *maxnoofULtsLCR* | Maximum number of Uplink time slots in a cell for 1.28Mcps TDD |
| *maxnoofHSSCCHs* | Maximum number of HS-SCCHs in a Cell |
| *maxnoofHSPDSCHs* | Maximum number of HS-PDSCHs in one time slot of a Cell |

## 9.1.63 PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.64 PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.6 | | – | |
| *>Set Specific* | | | | TDD Only | – | |
| **>>Unsuccessful DL Shared Channel Set** | | *0..<maxnoofPDSCHSets>* | | | EACH | ignore |
| >>>PDSCH Set ID | M | | 9.2.3.13 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| **>>Unsuccessful UL Shared Channel Set** | | *0..<maxnoofPUSCHSets>* | | | EACH | ignore |
| >>>PUSCH Set ID | M | | 9.2.3.13 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofPDSCHSets* | Maximum number of PDSCH Sets in a cell |
| *maxnoofPUSCHSets* | Maximum number of PUSCH Sets in a cell |

## 9.1.65 RESET REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| CHOICE *Reset Indicator* | M | | | | YES | ignore |
| *>Communication Context* | | | | | – | |
| **>>Communication Context Information** | | *1..<maxCommunicationContext>* | | | EACH | reject |
| >>>CHOICE *Communication Context Type* | M | | | | – | |
| *>>>>CRNC Communication Context* | | | | | – | |
| >>>>>CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | – | |
| *>>>>Node B Communication Context* | | | | | – | |
| >>>>>Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC" shall not be used. | – | |
| *>Communication Control Port* | | | | | – | |
| **>>Communication Control Port Information** | | *1..<maxCCPinNodeB>* | | | EACH | reject |
| >>>Communication Control Port ID | M | | 9.2.1.15 | | – | |
| *>Node B* | | | NULL | | – | |

| Range Bound | Explanation |
|---|---|
| *maxCommunicationContext* | Maximum number of Communication Contexts that can exist in the Node B |
| *maxCCPinNodeB* | Maximum number of Communication Control Ports that can exist in the Node B |

## 9.1.66 RESET RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.67 DL POWER TIMESLOT CONTROL REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC' shall not be used. | YES | ignore |
| DL Time Slot ISCP Info | O | | 9.2.3.4F | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | YES | ignore |
| DL Time Slot ISCP Info LCR | O | | 9.2.3.4P | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| Primary CCPCH RSCP | O | | 9.2.3.11A | | YES | ignore |
| Primary CCPCH RSCP Delta | O | | 9.2.3.11B | | YES | ignore |

## 9.1.68 RADIO LINK PREEMPTION REQUIRED INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | | YES | ignore |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of radio links for one UE |

## 9.1.69 INFORMATION EXCHANGE INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Information Exchange ID | M | | 9.2.1.36C | | YES | reject |
| CHOICE *Information Exchange Object Type* | M | | | | YES | reject |
| *>Cell* | | | | | – | |
| >>C-ID | M | | 9.2.1.9 | | – | |
| Information Type | M | | 9.2.1.36D | | YES | reject |
| Information Report Characteristics | M | | 9.2.1.36B | | YES | reject |

## 9.1.70 INFORMATION EXCHANGE INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Information Exchange ID | M | | 9.2.1.36C | | YES | ignore |
| CHOICE *Information Exchange Object Type* | O | | | | YES | ignore |
| *>Cell* | | | | | – | |
| >>Requested Data Value | M | | 9.2.1.51A | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.71 INFORMATION EXCHANGE INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Information Exchange ID | M | | 9.2.1.36C | | YES | ignore |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.72 INFORMATION REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Information Exchange ID | M | | 9.2.1.36C | | YES | ignore |
| CHOICE *Information Exchange Object Type* | M | | | | YES | ignore |
| *>Cell* | | | | | – | |
| >>Requested Data Value Information | M | | 9.2.1.51B | | – | |

## 9.1.73 INFORMATION EXCHANGE TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Information Exchange ID | M | | 9.2.1.36C | | YES | ignore |

## 9.1.74 INFORMATION EXCHANGE FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Information Exchange ID | M | | 9.2.1.36C | | YES | ignore |
| Cause | M | | 9.2.1.6 | | YES | ignore |

## 9.1.75 CELL SYNCHRONISATION INITIATION REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Cell Sync Burst Repetition Period | M | | 9.2.3.4J | | YES | reject |
| **Time Slot Information** | | *0..15* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | GLOBAL | reject |
| >Time Slot | M | | 9.2.3.23 | | – | |
| **Cell Sync Burst Transmission Initiation Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | GLOBAL | reject |
| >CSB Transmission ID | M | | 9.2.3.4N | | – | |
| >SFN | M | | 9.2.1.53A | | – | |
| >Cell Sync Burst Code | M | | 9.2.3.4G | | – | |
| >Cell Sync Burst Code Shift | M | | 9.2.3.4H | | – | |
| >Initial DL Transmission Power | M | | DL Power 9.2.1.21 | | – | |
| **Cell Sync Burst Measurement Initiation Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | GLOBAL | reject |
| >CSB Measurement ID | M | | 9.2.3.4I | | – | |
| >Cell Sync Burst Code | M | | 9.2.3.4G | | – | |
| >Cell Sync Burst Code Shift | M | | 9.2.3.4H | | – | |
| >Synchronisation Report Type | M | | 9.2.3.18E | | – | |
| >SFN | O | | 9.2.1.53A | | – | |
| >Synchronisation Report Characteristics | M | | 9.2.3.18D | | – | |
| **SYNC_DL Code Transmission Initiation Information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >CSB Transmission ID | M | | 9.2.3.4N | | – | |
| >SFN | M | | 9.2.1.53A | | – | |
| >UARFCN | M | | 9.2.1.65 | | – | |
| >SYNC_DL Code ID | M | | 9.2.3.18B | | – | |
| >DwPCH Power | M | | 9.2.3.5B | | – | |
| **SYNC_DL Code Measurement Initiation Information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >CSB Measurement ID | M | | 9.2.3.4I | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >SFN | O | | 9.2.1.53A | | – | |
| >UARFCN | M | | 9.2.1.65 | | – | |
| >SYNC_DL Code ID | M | | 9.2.3.18B | | – | |
| >Synchronisation Report Type | M | | 9.2.3.18E | | – | |
| >Synchronisation Report Characteristics | M | | 9.2.3.18D | | – | |

## 9.1.76 CELL SYNCHRONISATION INITIATION RESPONSE [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.77 CELL SYNCHRONISATION INITIATION FAILURE [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.78 CELL SYNCHRONISATION RECONFIGURATION REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Time Slot | M | | 9.2.3.23 | Applicable to 3.84Mcps TDD only. For 1.28Mcps TDD, the CRNC should set this to 0 and the Node B shall ignore it | YES | reject |
| Number Of Cycles Per SFN Period | M | | 9.2.3.7B | | YES | reject |
| Number Of Repetitions Per Cycle Period | M | | 9.2.3.7C | | YES | reject |
| **Cell Sync Burst Transmission Reconfiguration Information** | | *0..<maxnoofCellSyncBursts>* | | Applicable to 3.84Mcps TDD only | GLOBAL | reject |
| >CSB Transmission ID | M | | 9.2.3.4N | | – | |
| >Sync Frame Number To Transmit | M | | Sync Frame Number 9.2.3.18C | | – | |
| >Cell Sync Burst Code | O | | 9.2.3.4G | | – | |
| >Cell Sync Burst Code Shift | O | | 9.2.3.4H | | – | |
| >DL Transmission Power | O | | DL Power 9.2.1.21 | | – | |
| **Cell Sync Burst Measurement Reconfiguration Information** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | reject |
| **>Cell Sync Burst Measurement Information** | | *1..<maxnoofCellSyncBursts>* | | | – | |
| >>Sync Frame Number To Receive | M | | Sync Frame Number 9.2.3.18C | | – | |
| **>>Cell Sync Burst Information** | | *1..<maxnoofreceptionsperSyncFrame>* | | | – | |
| >>>CSB Measurement ID | M | | 9.2.3.4I | | – | |
| >>>Cell Sync Burst Code | M | | 9.2.3.4G | | – | |
| >>>Cell Sync Burst Code Shift | M | | 9.2.3.4H | | – | |
| >Synchronisation Report Type | O | | 9.2.3.18E | | – | |
| >Synchronisation Report Characteristics | O | | 9.2.3.18D | | – | |
| Number Of Subcycles Per Cycle Period | O | | 9.2.3.7D | Applicable to 1.28Mcps TDD only | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| **SYNC_DL Code Transmission Reconfiguration Information LCR** | | *0..<maxnoofSyncFramesLCR>* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >CSB Transmission ID | M | | 9.2.3.4N | | – | |
| >Sync Frame Number For Transmission | M | | Sync Frame Number 9.2.3.18C | | – | |
| >UARFCN | M | | 9.2.1.65 | | – | |
| >SYNC_DL Code ID | O | | 9.2.3.18B | | – | |
| >DwPCH Power | O | | 9.2.3.5B | | – | |
| **SYNC_DL Code Measurement Reconfiguration Information LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | reject |
| **>SYNC_DL Code Measurement Information LCR** | | *1..<maxnoofSyncDLCodesLCR>* | | | – | |
| >>Sync Frame Number To Receive | M | | Sync Frame Number 9.2.3.18C | | – | |
| **>>Sync_DLCode Information LCR** | | *1..<maxnofreceptionsperSyncFrameLCR>* | | | – | |
| >>>CSB Measurement ID | M | | 9.2.3.4I | | – | |
| >>>SYNC_DL Code ID | M | | 9.2.3.18B | | – | |
| >>>UARFCN | M | | 9.2.1.65 | | – | |
| >>>Propagation Delay Compensation | O | | Timing Adjustment Value LCR 9.2.3.22b | | – | |
| >Synchronisation Report Type | O | | 9.2.3.18E | | – | |
| >Synchronisation Report Characteristics | O | | 9.2.3.18D | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofCellSyncBursts* | Maximum number of cell synchronisation bursts per cycle for 3.84Mcps TDD |
| *maxnoofreceptionsperSyncFrame* | Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD |
| *maxnoofSyncFramesLCR* | Maximum number of Sync Frames per subcycle for 1.28Mcps TDD |
| *maxnoofreceptionsperSyncFrameLCR* | Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD |

## 9.1.79 CELL SYNCHRONISATION RECONFIGURATION RESPONSE [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.80 CELL SYNCHRONISATION RECONFIGURATION FAILURE [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Cause | M | | 9.2.1.6 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.81 CELL SYNCHRONISATION REPORT [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| **Cell Synchronisation Information** | | *1..<maxCellinNodeB>* | | | EACH | ignore |
| >C-ID | M | | 9.2.1.9 | | YES | ignore |
| >CHOICE *Synchronisation Report Type* | M | | | | YES | ignore |
| *>>Initial Phase or Steady-State Phase* | | | | | – | |
| **>>>Cell Sync Burst Measured Information** | | *0..<maxnoofCellSyncBursts>* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | – | |
| >>>>SFN | M | | 9.2.1.53A | | – | |
| **>>>>Cell Sync Burst Information** | | *1..<maxnoofreceptionsperSyncFrame>* | | | – | |
| >>>>>CHOICE *Cell Sync Burst Availability Indicator* | M | | | | – | |
| *>>>>>>Cell Sync Burst Available* | | | | | – | |
| >>>>>>>Cell Sync Burst Timing | M | | 9.2.3.4L | | – | |
| >>>>>>>Cell Sync Burst SIR | M | | 9.2.3.4K | | – | |
| *>>>>>>Cell Sync Burst Not Available* | | | NULL | | – | |
| >>>Accumulated Clock Update | O | | Timing Adjustment Value 9.2.3.22a | | – | |
| **>>>SYNC_DL Codes Measured Information** | | *0..<maxnoofSyncFramesLCR>* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >>>>SFN | M | | 9.2.1.53A | | – | |
| **>>>>SYNC_DL Code Information** | | *1..<maxnoofreceptionsperSyncFrameLCR>* | | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>>>CHOICE *SYNC_DL Code Availability Indicator* | M | | | | – | |
| >>>>>>*SYNC_DL Code Available* | | | | | – | |
| >>>>>>>SYNC_ DL Code ID Timing | M | | Cell Sync Burst Timing LCR 9.2.3.4La | | – | |
| >>>>>>>SYNC_ DL Code ID SIR | M | | Cell Sync Burst SIR 9.2.3.4K | | – | |
| >>>>>>*SYNC_DL Code Not Available* | | | NULL | | – | |
| >>*Late-Entrant Cell* | | | NULL | | – | |
| >>*Frequency Acquisition* | | | NULL | | – | |

| Range Bound | Explanation |
|---|---|
| *maxCellinNodeB* | Maximum number of Cells in a Node B |
| *maxnoofCellSyncBursts* | Maximum number of cell synchronisation bursts per cycle for 3.84Mcps TDD |
| *maxnoofreceptionsperSyncFrame* | Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD |
| *maxnoofSyncFramesLCR* | Maximum number of SYNC Frames per measurement reporting period for 1.28Mcps TDD |
| *maxnoofreceptionsperSyncFrameLCR* | Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD |

## 9.1.82 CELL SYNCHRONISATION TERMINATION REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | ignore |
| CSB Transmission ID | O | | 9.2.3.4N | | YES | ignore |
| CSB Measurement ID | O | | 9.2.3.4I | | YES | ignore |

## 9.1.83 CELL SYNCHRONISATION FAILURE INDICATION [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | ignore |
| CSB Transmission ID | O | | 9.2.3.4N | | YES | ignore |
| CSB Measurement ID | O | | 9.2.3.4I | | YES | ignore |
| Cause | M | | 9.2.1.6 | | YES | ignore |

## 9.1.84 CELL SYNCHRONISATION ADJUSTMENT REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| **Cell Adjustment Information** | | *1..<maxCellinNodeB>* | | | EACH | ignore |
| >C-ID | M | | 9.2.1.9 | | – | |
| >Frame Adjustment Value | O | | 9.2.3.5C | | – | |
| >Timing Adjustment Value | O | | 9.2.3.22a | Applicable to 3.84Mcps TDD only | – | |
| >DL Transmission Power | O | | 9.2.1.21 | Applicable to 3.84Mcps TDD only | – | |
| >SFN | O | | 9.2.1.53A | | – | |
| >DwPCH Power | O | | 9.2.3.5B | Applicable to 1.28Mcps TDD only | YES | ignore |
| >Timing Adjustment Value LCR | O | | 9.2.3.22b | Applicable to 1.28Mcps TDD only | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxCellinNodeB* | Maximum number of Cells in a Node B |

## 9.1.85 CELL SYNCHRONISATION ADJUSTMENT RESPONSE [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

## 9.1.86 CELL SYNCHRONISATION ADJUSTMENT FAILURE [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| >*General* | | | | | – | |
| >>Cause | M | | 9.2.1.6 | | – | |
| >*Cell Specific* | | | | | – | |
| **>>Unsuccessful Cell Information Response** | | *1..<maxCellinNodeB>* | | | EACH | ignore |
| >>>C-ID | M | | 9.2.1.9 | | – | |
| >>>Cause | M | | 9.2.1.6 | | – | |
| Criticality Diagnostics | O | | 9.2.1.17 | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxCellinNodeB* | Maximum number of Cells in a Node B |

## 9.1.87 BEARER REARRANGEMENT INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| Signalling Bearer Request Indicator | O | | 9.2.1.55A | | YES | ignore |
| **DCHs To Re-arrange** | | *0..<maxnoofDCHs>* | | | GLOBAL | ignore |
| >DCH ID | M | | 9.2.1.20 | | – | |
| **DSCHs To Re-arrange** | | *0..<maxnoofDSCHs>* | | TDD only | GLOBAL | ignore |
| >DSCH ID | M | | 9.2.3.5a | | – | |
| **USCHs To Re-arrange** | | *0..<maxnoofUSCHs>* | | TDD only | GLOBAL | ignore |
| >USCH ID | M | | 9.2.3.27 | | – | |
| **HS-DSCHs MAC-d Flow To Re-arrange** | | *0..<maxnoofMACdFlows>* | | | GLOBAL | ignore |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.31I | | – | |
| **E-DCHs MAC-d Flow To Re-arrange** | | *0..<maxnoofEDCHMACdFlows>* | | FDD only | GLOBAL | ignore |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.29ad | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for a UE |
| *maxnoofDSCHs* | Maximum number of DSCHs for a UE |
| *maxnoofUSCHs* | Maximum number of USCHs for a UE |
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

## 9.1.88 RADIO LINK ACTIVATION COMMAND

### 9.1.88.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | | YES | ignore |
| **Delayed Activation Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >Delayed Activation Update | M | | 9.2.1.24D | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

### 9.1.88.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | | YES | ignore |
| **Delayed Activation Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.53 | | – | |
| >Delayed Activation Update | M | | 9.2.1.24D | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

## 9.1.89 RADIO LINK PARAMETER UPDATE INDICATION

### 9.1.89.1 FDD Message

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| HS-DSCH FDD Update Information | O | | 9.2.2.18Ea | | YES | ignore |
| E-DCH FDD Update Information | O | | 9.2.2.13DA | | YES | ignore |

### 9.1.89.2 TDD Message

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | ignore |
| HS-DSCH TDD Update Information | O | | 9.2.3.5GA | | YES | ignore |

### 9.1.90 MBMS NOTIFICATION UPDATE COMMAND

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | ignore |
| Common Physical Channel ID | M | | 9.2.1.13 | | YES | ignore |
| Modification Period | O | | 9.2.1.47a | | YES | ignore |
| MICH CFN | M | | 9.2.1.46a | | YES | ignore |
| **NI Information** | | *1..<maxNoofNIs>* | | | GLOBAL | ignore |
| >NI | M | | 9.2.1.47F | | – | |

| Range Bound | Explanation |
|---|---|
| *maxNoofNIs* | Maximum number of NIs |

## 9.2 Information Element Functional Definition and Contents

### 9.2.0 General

Subclause 9.2 presents the NBAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in Subclause 9.3. In case there is a contradiction between the tabular format in Subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);
- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

### 9.2.1 Common parameters

#### 9.2.1.1 Add/Delete Indicator

The add/delete indicator shall notify the CRNC whether the associated resource has been added to or removed from the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Add/Delete Indicator | | | ENUMERATED ( Add, Delete) | |

#### 9.2.1.1A Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of Node B internal resources. See Annex A.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Priority Level | M | | INTEGER (0..15) | This IE indicates the priority of the request.<br>**Usage:**<br>Value "0" means "Spare"; It shall be treated as a logical error if received.<br>Values between "1" and "14" are ordered in decreasing order of priority, "1" being the highest and "14" the lowest.<br>Value "15" means "No Priority". |
| Pre-emption Capability | M | | ENUMERATED ( shall not trigger pre-emption, may trigger pre-emption) | |
| Pre-emption Vulnerability | M | | ENUMERATED ( not pre-emtable, pre-emtable) | |

### 9.2.1.2 Availability Status

The availability status is used to indicate more detailed information of the availability of the resource. In accordance with ref. [3], following values are defined. If the value of this IE is "empty", this implies that none of the status conditions described in ref. [3] are present.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Availability Status | | | ENUMERATED ( empty, in test, failed, power off, off line, off duty, dependency, degraded, not installed, log full, …) | |

### 9.2.1.3 BCCH Modification Time

Indicates the time after which the new system information shall be applied on BCCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| BCCH Modification Time | | | INTEGER (0..511) | All SFN values in which MIB may be mapped are allowed. The tabular description is presented in [18]. |

### 9.2.1.4 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [2][31], this IE contains the identifier that is allocated at the Node B and that is unique for each transport bearer under establishment to/from the Node B.

If the Transport Layer Address contains an IP address [29], this IE contains the UDP port [30] intended to be used for the user plane transport.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Binding ID | | | OCTET STRING (1..4,…) | If the Binding ID includes an UDP port, the UDP port is included in octets 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID. |

### 9.2.1.4A BLER

Void.

### 9.2.1.5 Blocking Priority Indicator

The Blocking priority indicator shall indicate the immediacy with which a resource should be blocked from use. The following priority classes shall be supported in the Blocking priority indicator.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Blocking Priority Indicator | | | ENUMERATED ( High, Normal, Low, …) | "High" priority: Block resource immediately.<br>"Normal" priority: Block resource when idle or upon timer expiry.<br>"Low" priority: Block resource when idle. |

### 9.2.1.5A Burst Mode Parameters

The *Burst Mode Parameters* IE provides information to be applied for IPDL burst mode.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Burst Start | M | | INTEGER (0..15) | See [10] and [21] |
| Burst Length | M | | INTEGER (10..25) | See [10] and [21] |
| Burst Freq | M | | INTEGER (1..16) | See [10] and [21] |

### 9.2.1.6 Cause

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Cause Group* | M | | | |
| *>Radio Network Layer* | | | | |
| >>Radio Network Layer Cause | M | | ENUMERATED (<br>unknown C-ID,<br>Cell not available,<br>Power level not supported,<br>DL radio resources not available,<br>UL radio resources not available,<br>RL Already Activated/allocated,<br>Node B Resources Unavailable,<br>Measurement not supported for the object,<br>Combining Resources not available,<br>Requested configuration not supported,<br>Synchronization failure,<br>Priority transport channel established,<br>SIB Origination in Node B not Supported,<br>Requested Tx Diversity Mode not supported,<br>Unspecified,<br>BCCH scheduling error,<br>Measurement Temporarily not Available,<br>Invalid CM Setting,<br>Reconfiguration CFN not elapsed,<br>Number of DL codes not supported,<br>S-CPICH not supported,<br>Combining not supported,<br>UL SF not supported,<br>DL SF not supported,<br>Common Transport Channel Type not supported,<br>Dedicated Transport Channel Type not supported,<br>Downlink Shared Channel Type not supported,<br>Uplink Shared Channel Type not supported,<br>CM not supported,<br>Tx diversity no longer supported,<br>Unknown Local Cell ID,<br>…,<br>Number of UL codes not supported,<br>Information temporarily not available,<br>Information Provision not supported for the object,<br>Cell Synchronisation not supported,<br>Cell Synchronisation Adjustment not supported,<br>DPC Mode Change not Supported, | |

| | | | | |
|---|---|---|---|---|
| | | | IPDL already activated,<br>IPDL not supported,<br>IPDL parameters not available,<br>Frequency Acquisition not supported,<br>Power Balancing status not compatible,<br>Requested type of Bearer Re-arrangement not supported,<br>Signalling Bearer Re-arrangement not supported,<br>Bearer Re-arrangement needed,<br>Delayed Activation not Supported,<br>RL Timing Adjustment not supported,<br>MICH not supported,<br>F-DPCH Not Supported) | |
| *>Transport Layer* | | | | |
| >>Transport Layer Cause | M | | ENUMERATED (<br>Transport resource unavailable,<br>Unspecified,<br>…) | |
| *>Protocol* | | | | |
| >>Protocol Cause | M | | ENUMERATED (<br>Transfer syntax error,<br>Abstract syntax error (reject),<br>Abstract syntax error (ignore and notify),<br>Message not compatible with receiver state,<br>Semantic error,<br>Unspecified,<br>Abstract syntax error (falsely constructed message),<br>…) | |
| *>Misc* | | | | |
| >>Miscellaneous Cause | M | | ENUMERATED (<br>Control processing overload<br>Hardware failure,<br>O&M intervention,<br>Not enough user plane processing resources,<br>Unspecified,<br>…) | |

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

| Radio Network Layer cause | Meaning |
|---|---|
| BCCH scheduling error | The Node B has detected an illegal BCCH schedule update (see subclause 8.2.16.3). |
| Bearer Re-arrangement needed | The Node B cannot perform the requested Radio Link Reconfiguration without bearer re-arrangement. |

| | |
|---|---|
| Cell not Available | The concerned cell or local cell is not available. |
| Cell Synchronisation not supported | The concernedcell(s) do not support Cell Synchronisation. |
| Combining not supported | The Node B does not support RL combining for the concernedcells. |
| Combining Resources Not Available | The value of the received *Diversity Control Field* IE was set to "Must", but the Node B cannot perform the requested combining. |
| CM not supported | The concerned cell(s) do not support Compressed Mode. |
| Common Transport Channel Type not supported | The concerned cell(s) do not support the RACH and/or FACH Common Transport Channel Type. |
| Dedicated Transport Channel Type not supported | The concerned cell(s) do not support the Dedicated Transport Channel Type. |
| Delayed Activation not Supported | The concerned cell(s) do not support delayed activation of RLs. |
| DL Radio Resources not Available | The Node B does not have sufficient DL radio resources available. |
| DL SF not supported | The concerned cell(s) do not support the requested DL SF. |
| DL Shared Channel Type not supported | The concerned cell(s) do not support the Downlink Shared Channel Type. |
| DPC Mode Change not Supported | The concerned cells do not support DPC mode changes. |
| Frequency Acquisition not supported | The concerned cell(s) do not support Frequency Acquisition. |
| F-DPCH not supported | The concerned cell(s) do not support the Fractional DPCH |
| Information Provision not supported for the object | The requested information provision is not supported for the concerned object types. |
| Information temporarily not available | The requested information can temporarily not be provided. |
| Invalid CM Settings | The concerned cell(s) consider the requested Compressed Mode settings invalid. |
| IPDL already activated | The concerned cell(s) have already active IPDL ongoing. |
| IPDL not supported | The concerned cell(s) do not support the IPDL. |
| IPDL parameters not available | The concerned cell(s) do not have IPDL parameters defining IPDL to be applied. |
| Measurement not Supported For The Object | At least one of the concerned cell(s) does not support the requested measurement on the concerned object type. |
| Measurement Temporarily not Available | The Node B can temporarily not provide the requested measurement value. |
| MICH not supported | The concerned cell does not support MICH. |
| Node B resources unavailable | The Node B does not have sufficient resources available. |
| Number of DL codes not supported | The concerned cell(s) do not support the requested number of DL codes. |
| Number of UL codes not supported | The concerned cell(s) do not support the requested number of UL codes. |
| Power Level not Supported | A DL power level was requested which the concerned cell(s) do not support. |
| Power Balancing status not compatible | The power balancing status in the SRNC is not compatible with that of the Node B. |
| Priority transport channel established | The CRNC cannot perform the requested blocking since a transport channel with a high priority is present. |
| RL Timing Adjustment not Supported | The concerned cell(s) do not support adjustments of the RL timing. |
| Reconfiguration CFN not elapsed | The requested action cannot be performed due to that a RADIO LINK RECONFIGURATION COMMIT message was received previously, but the concerned CFN has not yet elapsed. |
| Requested Configuration not Supported | The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters. |
| Requested Type of Bearer Re-arrangement not supported | The Node B does not support the requested type of bearer re-arrangement. |
| Requested Tx Diversity mode not supported | The concerned cell(s) do not support the requested transmit diversity mode. |
| RL already Activated/ allocated | The Node B has already allocated an RL with the requested RL-id for this UE context. |
| S-CPICH not supported | The concerned cell(s) do not support S-CPICH. |
| SIB Orgination in Node B not Supported | The Node B does not support the origination of the requested SIB for the concerned cell. |
| Signalling Bearer Re-arrangement not supported | The Node B does not support the Signalling bearer re-arrangement. |
| Synchronisation Failure | Loss of UL Uu synchronisation. |
| Cell Synchronisation Adjustment not | The concerned cell(s) do not support Cell Synchronisation Adjustment. |

| | |
|---|---|
| supported | |
| Tx diversity no longer supported | Tx diversity can no longer be supported in the concerned cell. |
| UL Radio Resources not Available | The Node B does not have sufficient UL radio resources available. |
| UL SF not supported | The concerned cell(s) do not support the requested minimum UL SF. |
| UL Shared Channel Type not supported | The concerned cell(s) do not support the Uplink Shared Channel Type. |
| Unknown C-ID | The Node B is not aware of a cell with the provided C-ID. |
| Unknown Local Cell ID | The Node B is not aware of a local cell with the provided Local Cell ID |
| Unspecified | Sent when none of the above cause values applies but still the cause is Radio Network layer related. |

| Transport Network Layer cause | Meaning |
|---|---|
| Transport resource unavailable | The required transport resources are not available. |
| Unspecified | Sent when none of the above cause values applies but still the cause is Transport Network layer related. |

| Protocol cause | Meaning |
|---|---|
| Abstract Syntax Error (Reject) | The received message included an abstract syntax error and the concerned criticality indicated "reject" (see subclause 10.3). |
| Abstract Syntax Error (Ignore and Notify) | The received message included an abstract syntax error and the concerned criticality indicated "ignore and notify" (see subclause 10.3). |
| Abstract syntax error (falsely constructed message) | The received message contained IEs in wrong order or with too many occurrences (see subclause 10.3). |
| Message not Compatible with Receiver State | The received message was not compatible with the receiver state (see subclause 10.4). |
| Semantic Error | The received message included a semantic error (see subclause 10.4). |
| Transfer Syntax Error | The received message included a transfer syntax error (see subclause 10.2). |
| Unspecified | Sent when none of the above cause values applies but still the cause is protocol related. |

| Miscellaneous cause | Meaning |
|---|---|
| Control Processing Overload | Node B control processing overload. |
| Hardware Failure | Node B hardware failure. |
| Not enough User Plane Processing Resources | Node B has insufficient user plane processing resources available. |
| O&M Intervention | Operation and Maintenance intervention related to Node B equipment. |
| Unspecified | Sent when none of the above cause values applies and the cause is not related to any of the categories Radio Network Layer, Transport Network Layer or Protocol. |

### 9.2.1.7 CFN

Connection Frame Number for the radio connection, see ref. [17].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CFN | | | INTEGER (0..255) | |

### 9.2.1.8 CFN Offset

Void.

### 9.2.1.9 C-ID

The C-ID (Cell identifier) is the identifier of a cell in one RNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| C-ID | | | INTEGER (0..65535) | |

### 9.2.1.9A Common Channels Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor. [FDD - For the PRACH, the reference spreading factor shall be the minimum possible spreading factor amongst the ones defined by the *RACH Slot Format* IE(s) in the Common Transport Channel Setup or Reconfiguration procedures.]

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Common Transport Channel Setup
- Common Transport Channel Deletion
- [FDD - Common Transport Channel Reconfiguration]

For the Common Transport Channel Setup procedure, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall be credited to the Capacity Credit for the Common Transport Channel Deletion one.

[FDD - For the Common Transport Channel Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited if this difference is negative).]

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

[FDD - When the Common Transport Channel Setup, Deletion or Reconfiguration procedures are used, the Capacity Credit shall be updated considering all physical channels related in these procedures (S-CCPCH, PICH, PRACH and AICH), i.e. one cost shall be credited to or debited from the Capacity Credit per physical channel.]

[FDD - The costs given in the consumption law are the costs per channelization code. When multiple channelization codes are used by a physical channel, the cost credited to or debited from the Capacity Credit for this physical channel shall be taken as N times the cost given in the consumption law, where N is the number of channelization codes.]

[TDD - When the Common Transport Channel Setup or Deletion procedures are used, the Capacity Credit shall be updated considering all physical channels related in these procedures (S-CCPCH, PICH, PRACH), i.e. one cost shall be credited to or debited from the Capacity Credit per physical channel.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **SF Allocation Law** | | *1..<maxnoofSFs>* | | [FDD - For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.]<br>[TDD – For each SF, cost of its allocation: the first instance corresponds to SF = 1, the second to SF = 2, the third to SF = 4 and so on.] |
| >DL cost | M | | INTEGER (0..65535) | |
| >UL cost | M | | INTEGER (0..65535) | |

| Range Bound | Explanation |
|---|---|
| *maxnoofSFs* | Maximum number of Spreading Factors |

### 9.2.1.9B Common Measurement Accuracy

The *Common Measurement Accuracy* IE indicates the accuracy of the common measurement.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Common Measurement Accuracy* | M | | | |
| >*$T_{UTRAN-GPS}$ Measurement Accuracy Class* | | | | |
| >>$T_{UTRAN-GPS}$ Measurement Accuracy Class | M | | $T_{UTRAN-GPS}$ Accuracy Class 9.2.1.64C | |

### 9.2.1.10 Common Measurement Object Type

Void.

### 9.2.1.11 Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common Measurement Type | | | ENUMERATED ( Received Total Wide Band Power, Transmitted Carrier Power, Acknowledged PRACH Preambles, UL Timeslot ISCP, NotUsed-1, NotUsed-2, …, UTRAN GPS Timing of Cell Frames for UE Positioning, SFN-SFN Observed Time Difference, Transmitted carrier power of all codes not used for HS transmission, HS-DSCH Required Power, HS-DSCH Provided Bit Rate, Received Total Wide Band Power for Cell Portion, Transmitted Carrier Power for Cell Portion, Transmitted carrier power of all codes not used for HS-PDSCH HS-SCCH E-AGCH E-RGCH or E-HICH transmission for Cell Portion, UpPTS Interference, DL Transmission Branch Load, HS-DSCH Required Power for Cell Portion, HS-DSCH Provided Bit Rate for Cell Portion, E-DCH Provided Bit Rate, E-DCH Non-serving Relative Grant Down Commands) | "UL Timeslot ISCP" is used by TDD only, "Acknowledged PRACH Preambles", 'DL Transmission Branch Load', "E-DCH Provided Bit Rate" are used by FDD only, 'UpPTS interference' is used by 1.28Mcps TDD only. This IE shall never be set to the values that are prefixed 'NotUsed-'. [TDD – The IE Type 'Transmitted carrier power of all codes not used for HS transmission" corresponds to the measurement 'Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission" in [5] and [23].] [FDD – The IE Type 'Transmitted carrier power of all codes not used for HS transmission" corresponds to the measurement 'Transmitted carrier power of all codes not used for HS-PDSCH HS-SCCH E-AGCH E-RGCH or E-HICH transmission" in [4] and [22].] |

### 9.2.1.12 Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Common Measurement Value* | M | | | | – | |
| *>Transmitted Carrier Power* | | | | | – | |
| >>Transmitted Carrier Power Value | M | | INTEGER (0..100) | According to mapping in [22] and [23] | – | |
| *>Received Total Wide Band Power* | | | | | – | |
| >>Received Total Wide Band Power Value | M | | INTEGER (0..621) | According to mapping in [22] and [23] | – | |
| *>Acknowledged PRACH Preambles* | | | | FDD Only | – | |
| >>Acknowledged PRACH Preamble Value | M | | INTEGER (0..240,…) | According to mapping in [22] | – | |
| *>UL Timeslot ISCP* | | | | TDD Only | – | |
| >>UL Timeslot ISCP | M | | INTEGER (0..127) | According to mapping in [23] | – | |
| *>Not used 1* | | | NULL | This choice shall not be used. Ignore if received. | – | |
| *>Not Used 2* | | | NULL | This choice shall not be used. Ignore if received. | – | |
| *>Additional Common Measurement Values* | | | | | – | |
| *>>UTRAN GPS Timing Of Cell Frames for UE Positioning* | | | | | – | |
| >>>$T_{UTRAN-GPS}$ Measurement Value Information | M | | 9.2.1.64A | | YES | ignore |
| *>>SFN-SFN Observed Time Difference* | | | | | – | |
| >>>SFN-SFN Measurement Value Information | M | | 9.2.1.53E | | YES | ignore |
| *>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission* | | | | | – | |
| >>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission Value | M | | INTEGER (0..100) | According to mapping in [22], measurement 'Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission" and mapping in [23], measurement 'Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission" | YES | ignore |
| *>>HS-DSCH Required Power* | | | | | – | |
| >>>HS-DSCH Required Power | M | | 9.2.1.31Ic | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| Value Information | | | | | | |
| *>>HS-DSCH Provided Bit Rate* | | | | | – | |
| >>>HS-DSCH Provided Bit Rate Value Information | M | | 9.2.1.31Ib | | YES | ignore |
| *>>Transmitted Carrier Power For Cell Portion* | | | | FDD Only | – | |
| >>>**Transmitted Carrier Power For Cell Portion Value** | | *1..< maxNrOfCellPortions>* | | | GLOBAL | ignore |
| >>>>Cell Portion ID | M | | 9.2.2.1Ca | | – | |
| >>>>Transmitted Carrier Power Value | M | | INTEGER (0..100) | According to mapping in [22] | – | |
| *>>Received Total Wide Band Power For Cell Portion* | | | | FDD Only | – | |
| >>>**Received Total Wide Band Power For Cell Portion Value** | | *1..< maxNrOfCellPortions>* | | | GLOBAL | ignore |
| >>>>Cell Portion ID | M | | 9.2.2.1Ca | | – | |
| >>>>Received Total Wide Band Power Value | M | | INTEGER (0..621) | According to mapping in [22] | – | |
| *>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion* | | | | FDD Only | – | |
| >>>**Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion Value** | | *1..< maxNrOfCellPortions>* | | | GLOBAL | ignore |
| >>>>Cell Portion ID | M | | 9.2.2.1Ca | | – | |
| >>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission Value | M | | INTEGER (0..100) | According to mapping in [22] | – | |
| *>>UpPTS interference* | | | | 1.28Mcps TDD Only | – | |
| >>>UpPTS interference Value | M | | INTEGER (0..127,…) | According to mapping in [23] | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| *>>DL Transmission Branch Load* | | | | FDD Only | – | |
| >>>NodeB DL Transmission Branch Load Values | M | | INTEGER (0..101,…) | According to mapping in [22] | YES | ignore |
| *>>HS-DSCH Required Power For Cell Portion* | | | | FDD Only | – | |
| *>>>HS-DSCH Required Power For Cell Portion Information* | | *1..<maxNrOfCellPortions>* | | | GLOBAL | ignore |
| >>>>Cell Portion ID | M | | 9.2.2.1Ca | | – | |
| >>>>HS-DSCH Required Power Value Information | M | | 9.2.1.31Ic | | – | |
| *>>HS-DSCH Provided Bit Rate For Cell Portion* | | | | FDD Only | – | |
| *>>>HS-DSCH Provided Bit Rate For Cell Portion Information* | | *1..<maxNrOfCellPortions>* | | | GLOBAL | ignore |
| >>>>Cell Portion ID | M | | 9.2.2.1Ca | | – | |
| >>>>HS-DSCH Provided Bit Rate Value Information | M | | 9.2.1.31Ib | | – | |
| *>>E-DCH Provided Bit Rate* | | | | FDD Only | – | |
| >>>E-DCH Provided Bit Rate Value Information | M | | 9.2.2.13S | | YES | ignore |
| *>>E-DCH Non-serving Relative Grant Down Commands* | | | | FDD Only | – | |
| >>>E-DCH Non-serving Relative Grant Down Commands Value Information | M | | INTEGER (0..100,…) | Down Commands per second | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *MaxNrOfCellPortions* | Maximum number of Cell Portions in a cell |

## 9.2.1.12A Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Measurement Availability Indicator* | M | | | |
| *>Measurement Available* | | | | |
| >>Common Measurement Value | M | | 9.2.1.12 | |
| *>Measurement Not Available* | | | NULL | |

### 9.2.1.13 Common Physical Channel ID

Common Physical Channel ID is the unique identifier for one common physical channel within a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common Physical Channel ID | | | INTEGER (0..255) | |

### 9.2.1.13A Common Physical Channel Status Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common Physical Channel ID | M | | 9.2.1.13 | |
| Resource Operational State | M | | 9.2.1.52 | |
| Availability Status | M | | 9.2.1.2 | |

### 9.2.1.14 Common Transport Channel ID

Common Transport Channel ID is the unique identifier for one common transport channel within a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common Transport Channel ID | | | INTEGER (0..255) | |

### 9.2.1.14A Common Transport Channel Information Response

The *Common Transport Channel Information Response* IE provides information for Common Transport Channels that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common Transport Channel ID | M | | 9.2.1.14 | |
| Binding ID | O | | 9.2.1.4 | |
| Transport Layer Address | O | | 9.2.1.63 | |

### 9.2.1.14B Common Transport Channel Status Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common Transport Channel ID | M | | 9.2.1.14 | |
| Resource Operational State | M | | 9.2.1.52 | |
| Availability Status | M | | 9.2.1.2 | |

### 9.2.1.15 Communication Control Port ID

A Communication Control Port corresponds to one signalling bearer between the CRNC and the Node B for the control of Node B Communication Contexts. The Node B may have multiple Communication Control Ports (one per Traffic Termination Point). The Communication Control Port is selected at creation of the Node B Communication Context. The Communication Control Port ID is the identifier of the Communication Control Port.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Communication Control Port ID | | | INTEGER (0..65535) | |

### 9.2.1.16 Configuration Generation ID

The Configuration Generation ID describes the generation of the configuration of logical resources in a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Configuration Generation ID | | | INTEGER (0..255) | Value "0" means "No configuration".<br>At possible wraparound of the ID counter in CRNC the value "0" shall not be used. |

### 9.2.1.17 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by a Node B or the CRNC when parts of a received message have not been comprehended or are missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the *Criticality Diagnostics* IE, see Annex C.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Procedure ID** | | *0..1* | | Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error | – | |
| >Procedure Code | M | | INTEGER (0..255) | | – | |
| >Ddmode | M | | ENUMERATED ( TDD, FDD, Common, …) | "Common" = common to FDD and TDD. | – | |
| Triggering Message | O | | ENUMERATED ( initiating message, successful outcome, unsuccessful outcome, outcome) | The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication. | – | |
| Procedure Criticality | O | | ENUMERATED ( reject, ignore, notify) | This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). | – | |
| Transaction ID | O | | 9.2.1.62 | | – | |
| **Information Element Criticality Diagnostics** | | *0..<maxnooferrors>* | | | – | |
| >IE Criticality | M | | ENUMERATED ( reject, ignore, notify) | The IE Criticality is used for reporting the criticality of the triggering IE. The value "ignore" shall never be used. | – | |
| >IE ID | M | | INTEGER (0..65535) | The IE ID of the not understood or missing IE | – | |
| >Repetition Number | O | | INTEGER (0..255) | The *Repetition Number* IE gives:<br>• for a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence<br>• for a missing IE: The number of occurrences up to but not including the missing occurrence.<br>Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them. | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >Message Structure | O | | 9.2.1.45A | The *Message Structure* IE describes the structure where the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message. | YES | ignore |
| >Type Of Error | M | | ENUMERATED ( not understood, missing, …) | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnooferrors* | Maximum number of IE errors allowed to be reported with a single message. |

## 9.2.1.18 CRNC Communication Context ID

The CRNC Communication Context ID is the identifier of the Communication Context in the CRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CRNC Communication Context ID | | | INTEGER (0..2^20 – 1) | "2^20-1" is a reserved value indicating all the CRNC Communication Contexts that can be reached by the Communication Control Port (All CRNCCC). |

## 9.2.1.18A CTFC

The CTFC is an integer number calculated in accordance with [18], subclause 14.10. Regarding the channel ordering, for all transport channels, "TrCH1" corresponds to the transport channel having the lowest transport channel identity among all configured transport channels on this CCTrCH. "TrCH2" corresponds to the transport channel having the next lowest transport channel identity, and so on.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *CTFC Format* | M | | | |
| *>2 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..3) | |
| *>4 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..15) | |
| *>6 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..63) | |
| *>8 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..255) | |
| *>12 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..4095) | |
| *>16 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..65535) | |
| *>max nb bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..maxCTFC) | |

| Range Bound | Explanation |
|---|---|
| MaxCTFC | Maximum number of the CTFC value is calculated according to the following:<br>$\sum_{i=1}^{I}(L_i - 1)P_i$<br>with the notation according to ref. [18] |

### 9.2.1.19 DCH Combination Indicator

Void.

### 9.2.1.20 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DCH ID | | | INTEGER (0..255) | |

### 9.2.1.20A Dedicated Channels Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the [FDD - allocated Spreading Factor and the RL/RLS situation] [TDD – allocated Spreading Factor on each DPCH and the assigned timeslot]. [FDD - In Uplink, the reference spreading factor shall be the minimum spreading factor signalled in the Radio Link Setup Request message. This is signalled using the *Min UL Channelisation Code Length* IE.]

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration
- Radio Link Deletion
- [TDD - Physical Shared Channel Reconfiguration]

For the Radio Link Setup and Radio Link Addition procedures, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall credited to the Capacity Credit for the Radio Link Deletion procedure. For the Radio Link Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited when this difference is negative).

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs and the UL costs shall be applied to the DL or Global Capacity Credit.

[FDD - For a Radio Link creating a Radio Link Set (first RL of a RLS), the cost for the RL (cost 2) and RLS (cost 1) shall be taken into account. When adding a Radio Link to a Radio Link Set, only the RL cost (cost 2) shall be taken into account.
In the case where multiple Radio Links are established in one procedure, for every created Radio Link Set, the first Radio Link is always the Radio Link with the lowest repetition number.]

[FDD - The costs given in the consumption law are the costs per channelization code. When multiple channelization codes are used by either the radio links, the cost credited to or debited from the Capacity Credit shall be taken as N times the cost for one code, where N is the number of channelization codes.]

[TDD -The cost for a radio link is a sum of the costs for each DPCH. For the first DPCH assigned to any user in a cell within a timeslot, the initial cost for a DPCH in a timeslot (cost 1) and the cost for a DPCH (cost 2) shall be taken into account. For any DPCH that is not the first DPCH assigned for any user in a cell within a timeslot, only the cost for a DPCH (cost 2) shall be taken into account.]

[TDD – The cost for shared channels is the sum of the costs for each PDSCH and PUSCH assigned to a PUSCH or PDSCH set. For the first PDSCH or PUSCH assigned to any user in a cell within a timeslot, the initial cost for a PDSCH/PUSCH in a timeslot (cost 1) and the cost for a PDSCH/PUSCH (cost 2) shall be taken into account. For any PDSCH/PUSCH that is not the first PDSCH/PUSCH assigned to any user in a cell within a timeslot, only the cost for a PDSCH/PUSCH (cost 2) shall be taken into account.]

[TDD - In the case of Physical Shared Channel Reconfiguration, the sum of the consumption cost of the each PDSCH/PUSCH of the previous configuration shall be credited to the capacity credit, and the sum of the consumption cost of each PDSCH/PUSCH of the new configuration shall be subtracted from the capacity credit.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **SF Allocation Law** | | *1..<maxnoofSFs>* | | [FDD - For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.]<br>[TDD – For each SF, cost of its allocation: the first instance corresponds to SF = 1, the second to SF = 2, the third to SF = 4 and so on.] |
| >DL Cost 1 | M | | INTEGER (0..65535) | [FDD – This is the cost of a RLS.]<br>[TDD – This is the additional cost of the first DPCH/PDSCH/PUSCH assigned to any user in a cell within a timeslot.] |
| >DL Cost 2 | M | | INTEGER (0..65535) | [FDD – This is the cost of a RL.]<br>[TDD – This is the cost of a DPCH/PDSCH/PUSCH] |
| >UL Cost 1 | M | | INTEGER (0..65535) | FDD – This is the cost of a RLS.]<br>[TDD – This is the additional cost of the first DPCH/PDSCH/PUSCH assigned to any user in a cell within a timeslot.] |
| >UL Cost 2 | M | | INTEGER (0..65535) | [FDD – This is the cost of a RL.]<br>[TDD – This is the cost of a DPCH/PDSCH/PUSCH.] |

| Range Bound | Explanation |
|---|---|
| *maxnoofSFs* | Maximum number of Spreading Factors |

## 9.2.1.20B DL Or Global Capacity Credit

The capacity credit indicates to the CRNC the Downlink or global capacity of a Local Cell or a Local Cell Group.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Or Global Capacity Credit | | | INTEGER (0..65535) | |

### 9.2.1.20C DCH Information Response

The *DCH Information Response* IE provides information for DCHs that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **DCH Information Response** | | *1..<maxnoofDCHs>* | | Only one DCH per set of coordinated DCHs shall be included |
| >DCH ID | M | | 9.2.1.20 | |
| >Binding ID | O | | 9.2.1.4 | |
| >Transport Layer Address | O | | 9.2.1.63 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCH per UE |

### 9.2.1.21 DL Power

The *DL Power* IE indicates a power level relative to the [FDD - primary CPICH power] [TDD - primary CCPCH power] configured in a cell. If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell.

[FDD - If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols.] [FDD - If referred to an F-DPCH, it indicates the Reference F-DPCH TX Power.]

[TDD - If referred to a DPCH or PDSCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher. If referred to a SCCPCH, the *DL Power* IE specifies the maximum power of the SCCPCH.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Power | | | INTEGER (-350..150) | Value = DL Power /10<br>Unit: dB<br>Range: -35.0 .. +15.0 dB<br>Step: 0.1dB |

### 9.2.1.22 Dedicated Measurement Object Type

Void.

### 9.2.1.23 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Dedicated Measurement Type | | | ENUMERATED ( SIR, SIR Error, Transmitted Code Power, RSCP, Rx Timing Deviation, Round Trip Time, …, Rx Timing Deviation LCR, Angle Of Arrival LCR, HS-SICH reception quality, Best Cell Portions) | "RSCP" and "HS-SICH reception quality" are used by TDD only. "Rx Timing Deviation" is used by 3.84Mcps TDD only. "Rx Timing Deviation LCR", "Angle Of Arrival LCR" are used by 1.28Mcps TDD only. "Round Trip Time", "SIR Error" are used by FDD only. 'Best Cell Portions' is used by FDD only. |

Note: For definitions of the measurement types refer to [4] and [5].

### 9.2.1.24 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Dedicated Measurement Value* | M | | | | – | |
| *>SIR Value* | | | | | – | |
| >>SIR Value | M | | INTEGER (0..63) | According to mapping in [22] and [23] | – | |
| *>SIR Error Value* | | | | FDD only | – | |
| >>SIR Error Value | M | | INTEGER (0..125) | According to mapping in [22] | – | |
| *>Transmitted Code Power Value* | | | | | – | |
| >>Transmitted Code Power Value | M | | INTEGER (0..127) | According to mapping in [22] and [23]. Values 0 to 9 and 123 to 127 shall not be used. | – | |
| *>RSCP* | | | | TDD only | – | |
| >>RSCP | M | | INTEGER (0..127) | According to mapping in [23] | – | |
| *>Rx Timing Deviation Value* | | | | Applicable to 3.84Mcps TDD only | – | |
| >>Rx Timing Deviation | M | | INTEGER (0..8191) | According to mapping in [23] | – | |
| *>Round Trip Time* | | | | FDD only | – | |
| >>Round Trip Time | M | | INTEGER (0..32767) | According to mapping in [22] | – | |
| *>Additional Dedicated Measurement Values* | | | | | – | |
| *>>Rx Timing Deviation Value LCR* | | | | Applicable to 1.28Mcps TDD only | – | |
| >>>Rx Timing Deviation LCR | M | | INTEGER (0..511) | According to mapping in [23] | YES | reject |
| *>>Angle Of Arrival Value LCR* | | | | Applicable to 1.28Mcps TDD only | – | |
| **>>>AOA Value LCR** | | *1* | | | YES | reject |
| >>>>AOA LCR | M | | INTEGER (0..719) | According to mapping in [23] | – | |
| >>>>AOA LCR Accuracy Class | M | | ENUMERATED ( A, B, C, D, E, F, G, H,...) | According to mapping in [23] | – | |
| *>>HS-SICH Reception Quality* | | | | Applicable to TDD only | – | |
| **>>>HS-SICH Reception Quality Value** | | *1* | | | YES | reject |
| >>>>Failed HS-SICH | M | | INTEGER (0..20) | According to mapping in [23] | – | |
| >>>>Missed HS-SICH | M | | INTEGER (0..20) | According to mapping in [23] | – | |
| >>>>Total HS-SICH | M | | INTEGER (0..20) | According to mapping in [23] | – | |
| *>>Best Cell Portions* | | | | FDD only | YES | reject |
| >>>Best Cell Portions | M | | 9.2.2.1Ba | | – | |

## 9.2.1.24A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message or not and if provided also the Dedicated Measurement Value itself.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Measurement Availability Indicator* | M | | | |
| *>Measurement Available* | | | | |
| >>Dedicated Measurement Value | M | | 9.2.1.24 | |
| >>CFN | O | | 9.2.1.7 | Dedicated Measurement Time Reference |
| *>Measurement Not Available* | | | NULL | |

## 9.2.1.24B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [28].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| GPS TOW | M | | INTEGER (0..604799) | Time in seconds. This field indicates the baseline time for which the corrections are valid. |
| Status/Health | M | | ENUMERATED ( UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data) | This field indicates the status of the differential corrections. |
| **Satellite Information** | | *1..<maxNoSat>* | | |
| >SatID | M | | INTEGER (0..63) | Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27]. |
| >IODE | M | | BIT STRING (8) | This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eight-bit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations. |
| >UDRE | M | | ENUMERATED ( UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE) | User Differential Range Error. This field provides an estimate of the uncertainty (1-σ) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite |
| >PRC | M | | INTEGER (-2047..2047) | Pseudo Range Correction<br>Unit: m (meters)<br>Step: 0.32 meters |
| >Range Correction Rate | M | | INTEGER (-127..127) | Unit: m/s<br>Step: 0.032 m/s |

| Range Bound | Explanation |
|---|---|
| *maxNoSat* | Maximum number of satellites for which information can be provided |

## 9.2.1.24C Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Delayed Activation* | M | | | |
| *>CFN* | | | | |
| >> Activation CFN | M | | CFN 9.2.1.7 | |
| *>Separate Indication* | | | NULL | |

## 9.2.1.24D Delayed Activation Update

The *Delayed Activation Update* IE indicates a change of the activation of the DL power for a specific RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Delayed Activation Update* | M | | | |
| *>Activate* | | | | |
| >>CHOICE *Activation Type* | M | | | |
| *>>>Synchronised* | | | | |
| >>>>Activation CFN | M | | CFN 9.2.1.7 | |
| *>>>Unsynchronised* | | | NULL | |
| >>Initial DL TX Power | M | | DL Power 9.2.1.21 | |
| >>First RLS Indicator | O | | 9.2.2.16A | FDD Only |
| >>Propagation Delay | O | | 9.2.2.35 | FDD Only |
| *>Deactivate* | | | | |
| >>CHOICE *Deactivation Type* | M | | | |
| *>>>Synchronised* | | | | |
| >>>>Deactivation CFN | M | | CFN 9.2.1.7 | |
| *>>>Unsynchronised* | | | NULL | |

## 9.2.1.24E Discard Timer

The *Discard Timer* IE defines the time to live for a MAC-hs SDU starting from the instant of its arrival into an HSDPA Priority Queue. The Node B shall use this information to discard out-of-data MAC-hs SDUs from the HSDPA Priority Queues.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| Discard Timer | | | ENUMERATED (20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 300, 400, 500, 750, 1000, 1250, 1500, 1750, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 7500, …) | Unit: ms |

### 9.2.1.25 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Diversity Control Field | | | ENUMERATED ( May, Must, Must Not, …) | |

### 9.2.1.26 Diversity Indication

Void.

### 9.2.1.26A DL DPCH Timing Adjustment

Void.

### 9.2.1.27 DSCH ID

Void.

### 9.2.1.27A DSCH Information Response

Void

### 9.2.1.28 DSCH Transport Format Set

Void.

### 9.2.1.29 DSCH Transport Format Combination Set

Void.

### 9.2.1.29A End Of Audit Sequence Indicator

Indicates if the AUDIT RESPONSE message ends an audit sequence or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| End Of Audit Sequence Indicator | | | ENUMERATED ( End of audit sequence, Not end of audit sequence) | "End of audit sequence" = all audit information has been provided by the Node B. "Not end of audit sequence" = more audit information is available. |

### 9.2.1.29B FN Reporting Indicator

The Frame Number Reporting Indicator indicates if the SFN or CFN shall be included together with the reported measurement value.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FN Reporting Indicator | | | ENUMERATED ( FN Reporting Required, FN Reporting Not Required) | |

### 9.2.1.30 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH [TDD - DSCH] for temporary restriction of the allocated resources due overload reason.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Frame Handling Priority | | | INTEGER (0..15) | "0" = lowest priority,<br>…<br>"15" = highest priority |

### 9.2.1.31 Frame Offset

The Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame Offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and the least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Frame Offset | | | INTEGER (0..255) | Frames |

### 9.2.1.31A IB_OC_ID

The IB OC ID identifies the occurrence of a specific Information Block.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IB OC ID | | | INTEGER (1..16) | |

### 9.2.1.31B GPS Navigation Model & Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [27].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Navigation Message 1to3** | | *1..<maxNo Sat>* | | |
| >Transmission TOW | M | | INTEGER (0..1048575) | Time of the Week when the message is broadcast. |
| >SatID | M | | INTEGER (0..63) | Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27]. |
| >TLM Message | M | | BIT STRING (14) | |
| >Tlm Revd (C) | M | | BIT STRING (2) | |
| >HO-Word | M | | BIT STRING (22) | |
| >WN | M | | BIT STRING (10) | |
| >C/A or P on L2 | M | | BIT STRING (2) | |
| >User Range Accuracy Index | M | | BIT STRING (4) | |
| >SV Health | M | | BIT STRING (6) | |
| >IODC | M | | BIT STRING (10) | |
| >L2 P Data Flag | M | | BIT STRING (1) | |
| >SF 1 Reserved | M | | BIT STRING (87) | |
| >$T_{GD}$ | M | | BIT STRING (8) | |
| >$t_{oc}$ | M | | BIT STRING (16) | |
| >$af_2$ | M | | BIT STRING (8) | |
| >$af_1$ | M | | BIT STRING (16) | |
| >$af_0$ | M | | BIT STRING (22) | |
| >$C_{rs}$ | M | | BIT STRING (16) | |
| >$\Delta n$ | M | | BIT STRING (16) | |
| >$M_0$ | M | | BIT STRING (32) | |
| >$C_{uc}$ | M | | BIT STRING (16) | |
| >e | M | | BIT STRING (32) | |
| >$C_{us}$ | M | | BIT STRING (16) | |
| >$(A)^{1/2}$ | M | | BIT STRING (32) | |
| >$t_{oe}$ | M | | BIT STRING (16) | |
| >Fit Interval Flag | M | | BIT STRING (1) | |
| >AODO | M | | BIT STRING (5) | |
| >$C_{ic}$ | M | | BIT STRING (16) | |
| >$OMEGA_0$ | M | | BIT STRING (32) | |
| >$C_{is}$ | M | | BIT STRING (16) | |
| >$i_0$ | M | | BIT STRING (32) | |
| >$C_{rc}$ | M | | BIT STRING (16) | |
| >$\omega$ | M | | BIT STRING (32) | |
| >OMEGAdot | M | | BIT STRING (24) | |
| >Idot | M | | BIT STRING (14) | |
| >Spare/zero fill | M | | BIT STRING (20) | |

| Range Bound | Explanation |
|---|---|
| *maxNoSat* | Maximum number of satellites for which information can be provided |

## 9.2.1.31C GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [27].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $\alpha_0$ | M | | BIT STRING (8) | |
| $\alpha_1$ | M | | BIT STRING (8) | |
| $\alpha_2$ | M | | BIT STRING (8) | |
| $\alpha_3$ | M | | BIT STRING (8) | |
| $\beta_0$ | M | | BIT STRING (8) | |
| $\beta_1$ | M | | BIT STRING (8) | |
| $\beta_2$ | M | | BIT STRING (8) | |
| $\beta_3$ | M | | BIT STRING (8) | |

### 9.2.1.31D GPS UTC Model

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [27].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $A_1$ | M | | BIT STRING (24) | |
| $A_0$ | M | | BIT STRING (32) | |
| $t_{ot}$ | M | | BIT STRING (8) | |
| $\Delta t_{LS}$ | M | | BIT STRING (8) | |
| $WN_t$ | M | | BIT STRING (8) | |
| $WN_{LSF}$ | M | | BIT STRING (8) | |
| DN | M | | BIT STRING (8) | |
| $\Delta t_{LSF}$ | M | | BIT STRING (8) | |

### 9.2.1.31E GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [27].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Bad Satellites Presence* | M | | | |
| *>Bad Satellites* | | | | |
| **>>Satellite Information** | | *1..<maxNo Sat>* | | |
| >>>BadSatID | M | | INTEGER (0..63) | Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27]. |
| *>No Bad Satellites* | | | NULL | |

| Range Bound | Explanation |
|---|---|
| *maxNoSat* | Maximum number of satellites for which information can be provided |

### 9.2.1.31F GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [27].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $WN_a$ | M | | BIT STRING (8) | |
| **Satellite Information** | M | *1..<maxNoOfSatAlmanac>* | | See Note 1. |
| >DataID | M | | INTEGER (0..3) | |
| >SatID | M | | INTEGER (0..63) | Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27]. |
| >e | M | | BIT STRING (16) | |
| >$t_{oa}$ | M | | BIT STRING (8) | |
| >$\delta i$ | M | | BIT STRING (16) | |
| >OMEGADOT | M | | BIT STRING (16) | |
| >SV Health | M | | BIT STRING (8) | |
| >$A^{1/2}$ | M | | BIT STRING (24) | |
| >$OMEGA_0$ | M | | BIT STRING (24) | |
| >$M_0$ | M | | BIT STRING (24) | |
| >$\omega$ | M | | BIT STRING (24) | |
| >$af_0$ | M | | BIT STRING (11) | |
| >$af_1$ | M | | BIT STRING (11) | |
| SV Global Health | O | | BIT STRING (364) | |

| Range Bound | Explanation |
|---|---|
| *maxNoOfSatAlmanac* | Maximum number of satellite almanacs for which information can be provided |

Note 1: This information element is a simplified representation of the ASN.1 description. Repetitions 1 through maxNoSat and repetitions maxNoSat+1 through maxNoOfSatAlmanac are represented by separate ASN.1 structures with different criticality.

## 9.2.1.31G GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Latitude Sign | M | | ENUMERATED ( North, South) | |
| Degrees of Latitude | M | | INTEGER (0..$2^{23}$-1) | The IE value (N) is derived by this formula: $N \leq 2^{23} X /90 < N+1$ X being the latitude in degree (0°.. 90°) |
| Degrees of Longitude | M | | INTEGER (-$2^{23}$..$2^{23}$-1) | The IE value (N) is derived by this formula: $N \leq 2^{24} X /360 < N+1$ X being the longitude in degree (-180°..+180°) |
| Direction of Altitude | M | | ENUMERATED ( Height, Depth) | |
| Altitude | M | | INTEGER (0..$2^{15}$-1) | The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <N+1, except for N=$2^{15}$-1 for which the range is extended to include all greater values of (a). |

### 9.2.1.31Ga HSDPA Capability

This parameter defines the HSDPA capability for a Local Cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HSDPA Capability | | | ENUMERATED (HSDPA Capable, HSDPA non Capable) | |

### 9.2.1.31H HS-DSCH Information To Modify

The *HS-DSCH Information To Modify* IE is used for modification of HS-DSCH information in a Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-DSCH MAC-d Flow Specific Information** | | *0..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.31I | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1A | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.62A | | – | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | – | |
| **Priority Queue Information** | | *0..<maxnoofPrioQueues>* | | | – | |
| >CHOICE *Priority Queue* | M | | | | – | |
| *>>Add Priority Queue* | | | | | – | |
| >>>Priority Queue ID | M | | 9.2.1.49C | | – | |
| >>>Associated HS-DSCH MAC-d Flow | M | | HS-DSCH MAC-d Flow ID 9.2.1.31I | Shall only refer to an HS-DSCH MAC-d flow already existing in the old configuration. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID. | – | |
| >>>Scheduling Priority Indicator | M | | 9.2.1.53H | | – | |
| >>>T1 | M | | 9.2.1.56a | | – | |
| >>>Discard Timer | O | | 9.2.1.24E | | – | |
| >>>MAC-hs Window Size | M | | 9.2.1.38B | | – | |
| >>>MAC-hs Guaranteed Bit Rate | O | | 9.2.1.38Aa | | – | |
| **>>>MAC-d PDU Size Index** | | *1..<maxnoofMACdPDUindexes>* | | | – | |
| >>>>SID | M | | 9.2.1.53I | | – | |
| >>>>MAC-d PDU Size | M | | 9.2.1.38A | | – | |
| >>>RLC Mode | M | | 9.2.1.52B | | – | |
| *>>Modify Priority Queue* | | | | | – | |
| >>>Priority Queue ID | M | | 9.2.1.49C | Shall only refer to a Priority Queue already existing in the old configuration. | – | |
| >>>Scheduling Priority Indicator | O | | 9.2.1.53H | | – | |
| >>>T1 | O | | 9.2.1.56a | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>Discard Timer | O | | 9.2.1.24E | | – | |
| >>>MAC-hs Window Size | O | | 9.2.1.38B | | – | |
| >>>MAC-hs Guaranteed Bit Rate | O | | 9.2.1.38Aa | | – | |
| **>>>MAC-d PDU Size Index** | | *0..<maxnoofMACdPDUindexes>* | | | – | |
| >>>>SID | M | | 9.2.1.53I | | – | |
| >>>>MAC-d PDU Size | M | | 9.2.1.38A | | – | |
| *>>Delete Priority Queue* | | | | | – | |
| >>>Priority Queue ID | M | | 9.2.1.49C | Shall only refer to a Priority Queue already existing in the old configuration. | – | |
| MAC-hs Reordering Buffer Size for RLC-UM | O | | 9.2.1.38Ab | | – | |
| CQI Feedback Cycle k | O | | 9.2.2.21B | For FDD only | – | |
| CQI Repetition Factor | O | | 9.2.2.4Cb | For FDD only | – | |
| ACK-NACK Repetition Factor | O | | 9.2.2.a | For FDD only | – | |
| CQI Power Offset | O | | 9.2.2.4Ca | For FDD only | – | |
| ACK Power Offset | O | | 9.2.2.b | For FDD only | – | |
| NACK Power Offset | O | | 9.2.2.23a | For FDD only | – | |
| HS-SCCH Power Offset | O | | 9.2.2.18I | For FDD only | – | |
| Measurement Power Offset | O | | 9.2.2.21C | For FDD only | – | |
| HS-SCCH Code Change Grant | O | | 9.2.1.31L | | – | |
| TDD ACK NACK Power Offset | O | | 9.2.3.18F | For TDD only | – | |
| HARQ Preamble Mode | O | | 9.2.2.18a | For FDD only | YES | ignore |
| HS-SICH SIR Target | O | | UL SIR 9.2.1.67A | Applicable to 1.28Mcps TDD only | YES | ignore |
| **UE Capabilities Information** | | | | | – | |
| >HS-DSCH Physical Layer Category | O | | 9.2.1.31Ia | | YES | Ignore |
| HS-SICH TPC step size | O | | 9.2.3.21a | Applicable to 1.28Mcps TDD only | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |
| *maxnoofPrioQueues* | Maximum number of Priority Queues |
| *maxnoofMACdPDUindexes* | Maximum number of different MAC-d PDU SIDs |

## 9.2.1.31HA HS-DSCH Information To Modify Unsynchronised

The *HS-DSCH Information To Modify Unsynchronised* IE is used for modification of HS-DSCH information in a Node B Communication Context with the Unsynchronised Radio Link Reconfiguration procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-DSCH MAC-d Flow Specific Information** | | *0..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.31I | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1A | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.62A | | – | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | – | |
| **Priority Queue Information** | | *0..<maxnoofPrioQueues>* | | | – | |
| >Priority Queue ID | M | | 9.2.1.49C | | – | |
| >Scheduling Priority Indicator | O | | 9.2.1.53H | | – | |
| >Discard Timer | O | | 9.2.1.24E | | – | |
| >MAC-hs Guaranteed Bit Rate | O | | 9.2.1.38Aa | | – | |
| CQI Power Offset | O | | 9.2.2.4Ca | For FDD only | – | |
| ACK Power Offset | O | | 9.2.2.b | For FDD only | – | |
| NACK Power Offset | O | | 9.2.2.23a | For FDD only | – | |
| HS-SCCH Power Offset | O | | 9.2.2.18I | For FDD only | – | |
| TDD ACK NACK Power Offset | O | | 9.2.3.18F | For TDD only | – | |
| HARQ Preamble Mode | O | | 9.2.2.18a | For FDD only | YES | ignore |
| HS-SICH SIR Target | O | | UL SIR 9.2.1.67A | Applicable to 1.28Mcps TDD only | YES | ignore |
| **UE Capabilities Information** | | | | | – | |
| >HS-DSCH Physical Layer Category | O | | 9.2.1.31Ia | | YES | Ignore |
| HS-SICH TPC step size | O | | 9.2.3.21a | Applicable to 1.28Mcps TDD only | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |
| *maxnoofPrioQueues* | Maximum number of Priority Queues |

## 9.2.1.31Ha HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iub.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **HS-DSCH Initial Capacity Allocation** | | *1..<maxnoofPrioQueues>* | | |
| >Scheduling Priority Indicator | M | | 9.2.1.53H | |
| >Maximum MAC-d PDU Size | M | | MAC-d PDU Size 9.2.1.38A | |
| >HS-DSCH Initial Window Size | M | | 9.2.1.31Hb | |

| Range Bound | Explanation |
|---|---|
| *maxnoofPrioQueues* | Maximum number of Priority Queues |

## 9.2.1.31Hb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs that may be transmitted before new credits are received from the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH Initial Window Size | | | INTEGER (1..255) | Number of MAC-d PDUs |

## 9.2.1.31I HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH MAC-d Flow ID | | | INTEGER (0..7) | |

## 9.2.1.31IA HS-DSCH MAC-d Flows Information

The *HS-DSCH MAC-d Flows Information* IE is used for the establishment of HS-DSCH MAC-d flows for a Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **HS-DSCH MAC-d Flow Specific Information** | | *1..<maxnoofMACdFlows>* | | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.31I | |
| >Allocation/Retention Priority | M | | 9.2.1.1A | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. |
| **Priority Queue Information** | | *1..<maxnoofPrioQueues>* | | |
| >Priority Queue ID | M | | 9.2.1.49C | |
| >Associated HS-DSCH MAC-d Flow | M | | HS-DSCH MAC-d Flow ID 9.2.1.31I | The HS-DSCH MAC-d Flow ID shall be one of the flow IDs defined in the HS-DSCH MAC-d Flow Specific Information of this IE. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID. |
| >Scheduling Priority Indicator | M | | 9.2.1.53H | |
| >T1 | M | | 9.2.1.56a | |
| >Discard Timer | O | | 9.2.1.24E | |
| >MAC-hs Window Size | M | | 9.2.1.38B | |
| >MAC-hs Guaranteed Bit Rate | O | | 9.2.1.38Aa | |
| **>MAC-d PDU Size Index** | | *1..<maxnoofMACdPDUindexes>* | | |
| >>SID | M | | 9.2.1.53I | |
| >>MAC-d PDU Size | M | | 9.2.1.38A | |
| >RLC Mode | M | | 9.2.1.52B | |

| Range Bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |
| *maxnoofPrioQueues* | Maximum number of Priority Queues |
| *maxnoofMACdPDUindexes* | Maximum number of different MAC-d PDU SIDs |

## 9.2.1.31IB HS-DSCH MAC-d Flows To Delete

The *HS-DSCH MAC-d Flows To Delete* IE is used for the removal of HS-DSCH MAC-d flows from a Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **HS-DSCH MAC-d Flows To Delete** | | *1..<maxnoofMACdFlows>* | | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.31I | |

| Range Bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |

## 9.2.1.31Ia HS-DSCH Physical Layer Category

The *HS-DSCH Physical Layer Category* IE defines a set of UE radio access capabilities related to HSDPA, as defined in [33].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH Physical Layer Category | | | INTEGER (1..64,…) | |

### 9.2.1.31Iaa HS-DSCH Provided Bit Rate Value

The *HS-DSCH Provided Bit Rate Value* IE indicates the HS-DSCH Provided Bit Rate as defined in [32].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH Provided Bit Rate Value | | | INTEGER (0..2^24-1, …) | Expressed in bit/s. |

### 9.2.1.31Ib HS-DSCH Provided Bit Rate Value Information

The *HS-DSCH Provided Bit Rate Value Information* IE reports the *HS-DSCH Provided Bit Rate Value* IE for each priority class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **HS-DSCH Provided Bit Rate Value Information** | | *1..<maxNoofPriorityClasses>* | | |
| >Scheduling Priority Indicator | M | | 9.2.1.53H | |
| >HS-DSCH Provided Bit Rate Value | M | | 9.2.1.31Iaa | |

| Range Bound | Explanation |
|---|---|
| *maxNoofPriorityClasses* | Maximum number of HS-DSCH Scheduling Priorities |

### 9.2.1.31Iba HS-DSCH Required Power Value

The *HS-DSCH Required Power Value* IE indicates the minimum necessary power for a given priority class to meet the Guaranteed Bit Rate for all the established HS-DSCH connections belonging to this priority class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH Required Power Value | | | INTEGER (0..1000) | Expressed in thousandths of the max transmission power |

### 9.2.1.31Ic HS-DSCH Required Power Value Information

The *HS-DSCH Required Power Value Information* IE reports the *HS-DSCH Required Power Value* IE for each priority class. For each priority class, a list of UEs, identified by the *CRNC Communication Context* IEs, requiring a particularly high amount of power to meet the Guaranteed Bit Rate for their established HS-DSCH connections may be included. Additionally, the *HS-DSCH Required Power Per UE Weight* IE may be included for each of those UEs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **HS-DSCH Required Power Value Information** | | *1..<maxNoofPriorityClasses>* | | |
| >Scheduling Priority Indicator | M | | 9.2.1.53H | |
| >HS-DSCH Required Power Value | M | | 9.2.1.31Iba | |
| **>HS-DSCH Required Power Per UE Information** | | *0..<maxNoofContextsonUeList>* | | List of UEs with Guaranteed Bit Rate indicating their required power consumption relative to the HS-DSCH Required Power Value. |
| >>CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. |
| >>HS-DSCH Required Power Per UE Weight | O | | INTEGER (0..100) | Expressed in percentage of the value provided in the *HS-DSCH Required Power Value* IE |

| Range Bound | Explanation |
|---|---|
| *maxNoofContextsonUeList* | Maximum number of Communication Contexts to include in the list of UEs |
| *maxNoofPriorityClasses* | Maximum number of HS-DSCH Scheduling Priorities |

## 9.2.1.31J HS-DSCH RNTI

The HS-DSCH RNTI is used for the UE-specific CRC in HS-SCCH and HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH RNTI | | | INTEGER (0..65535) | |

## 9.2.1.31K HS-SCCH Code Change Indicator

The HS-SCCH Code Change Indicator indicates whether the HS-SCCH Code change is needed or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-SCCH Code Change Indicator | | | ENUMERATED (HS-SCCH Code Change needed) | |

## 9.2.1.31L HS-SCCH Code Change Grant

The *HS-SCCH Code Change Grant* IE indicates that modification of HS-SCCH Codes is granted.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-SCCH Code Change Grant | | | ENUMERATED (Change Granted) | |

## 9.2.1.32 IB_SG_DATA

Segment as defined in ref. [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IB_SG_DATA | | | BIT STRING | Contains "SIB data fixed" or "SIB data variable" in segment as encoded in ref. [18].<br>See Annex D |

### 9.2.1.33 IB_SG_POS

The lowest position of a specific Information Block segment in the SFN cycle (IB_SG_POS < IB_SG_REP).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IB_SG_POS | | | INTEGER (0..4094) | Only even positions are allowed.<br>See ref. [18] |

### 9.2.1.34 IB_SG_REP

Repetition distance for an Information Block segment. The segment shall be transmitted when SFN mod IB_SG_REP = IB_SG_POS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IB_SG_REP | | | ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096) | Repetition period for the IB segment in frames |

### 9.2.1.35 IB Type

The IB Type identifies a specific system information block.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IB Type | | | ENUMERATED (<br>MIB,<br>SB1,<br>SB2,<br>SIB1,<br>SIB2,<br>SIB3,<br>SIB4,<br>SIB5,<br>SIB6,<br>SIB7,<br>SIB8,<br>SIB9,<br>SIB10,<br>SIB11,<br>SIB12,<br>SIB13,<br>SIB13.1,<br>SIB13.2,<br>SIB13.3,<br>SIB13.4,<br>SIB14,<br>SIB15,<br>SIB15.1,<br>SIB15.2,<br>SIB15.3,<br>SIB16,<br>…,<br>SIB17,<br>SIB15.4,<br>SIB18,<br>SIB15.5,<br>SIB5bis,<br>SIB11bis) | |

### 9.2.1.36 Indication Type

Void.

### 9.2.1.36A Information Exchange Object Type

Void.

### 9.2.1.36B Information Report Characteristics

The information report characteristics defines how the reporting shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Information Report Characteristics Type* | M | | | |
| *>On Demand* | | | NULL | |
| *>Periodic* | | | | |
| >>CHOICE *Information Report Periodicity Scale* | M | | | The frequency with which the Node B shall send information reports. |
| *>>>minute* | | | | |
| >>>>Report Periodicity Value | M | | INTEGER (1..60,…) | Unit: min |
| *>>>hour* | | | | |
| >>>>Report Periodicity Value | M | | INTEGER (1..24,…) | Unit: h |
| *>On Modification* | | | | |
| >>Information Threshold | O | | 9.2.1.36E | |

## 9.2.1.36C Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Information Exchange ID | M | | INTEGER (0..2^20-1) | |

## 9.2.1.36D Information Type

The Information Type indicates which kind of information the Node B shall provide.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Information Type Item | M | | ENUMERATED ( GPS Information, DGPS Corrections, GPS RX Pos, …) | |
| **GPS Information** | C-GPS | *0..<maxNoGPSItems>* | | |
| >GPS Information Item | | | ENUMERATED ( GPS Navigation Model & Time Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real-Time Integrity, …) | |

| Condition | Explanation |
|---|---|
| GPS | The IE shall be present if the *Information Type Item* IE indicates "GPS Information". |

| Range Bound | Explanation |
|---|---|
| *maxNoGPSItems* | Maximum number of GPS Information Items supported in one Information Exchange |

### 9.2.1.36E Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Information Type Item* | M | | | |
| *>DGPS* | | | | |
| >>PRC Deviation | M | | ENUMERATED (1, 2, 5, 10, …) | PRC deviation in meters from the previously reported value, which shall trigger a report |

### 9.2.1.36F IPDL Indicator

Indicates if IPDL periods shall be active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IPDL Indicator | | | ENUMERATED ( active, inactive) | |

### 9.2.1.37 Limited Power Increase

Void.

### 9.2.1.37A Local Cell Group ID

The Local Cell Group ID represents resources in the Node B, which have been pooled from a capacity point of view.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Local Cell Group ID | | | Local Cell ID 9.2.1.38 | |

### 9.2.1.38 Local Cell ID

The local cell ID represents resources in the Node B that can be used for the configuration of a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Local Cell ID | | | INTEGER (0…268435455) | |

### 9.2.1.38A MAC-d PDU Size

The *MAC-d PDU Size* provides the size in bits of the MAC-d PDU.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-d PDU Size | | | INTEGER (1..5000,…) | |

### 9.2.1.38Aa MAC-hs Guaranteed Bit Rate

The *MAC-hs Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second that Node B should deliver over the air interface under normal operating conditions (provided there is data to deliver).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-hs Guaranteed Bit Rate | | | INTEGER (0..2^24-1, …) | Unit: bit/s |

### 9.2.1.38Ab MAC-hs Reordering Buffer Size for RLC-UM

The *MAC-hs Reordering Buffer Size for RLC-UM* IE indicates the portion of the buffer in the UE that can be used for RLC-UM traffic (i.e. for Priority Queues whose *RLC Mode* IE is set to "RLC-UM").

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-hs Reordering Buffer Size | | | INTEGER (0..300,…) | Unit: kBytes<br>And N kBytes = N*1024 Bytes.<br>The Node B shall use this value to avoid the overflow of the MAC-hs reordering buffer. |

### 9.2.1.38B MAC-hs Window Size

The *MAC-hs Window Size* IE is used for MAC-hs PDU retransmission as defined in [32].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-hs Window Size | | | ENUMERATED (4, 6, 8, 12, 16, 24, 32,…) | |

### 9.2.1.39 Maximum DL Power Capability

This parameter indicates the maximum DL power capability for a local cell or a Power Local Cell Group within the Node B. The reference point is the antenna connector. If Transmit Diversity can be used in the local cell, the parameter indicates the maximum for the linear sum of the power that can be used on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum DL Power Capability | | | INTEGER (0..500) | Unit: dBm<br>Range: 0..50 dBm<br>Step: 0.1 dB |

### 9.2.1.40 Maximum Transmission Power

The Maximum Transmission Power is the maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used in a cell. If Transmit Diversity is applied to one downlink physical channel, the power to be considered for this downlink physical channel is the linear sum of the power used for this downlink physical channel on all branches. The reference point is the antenna connector.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Transmission Power | | | INTEGER (0..500) | Unit: dBm<br>Range: 0..50<br>Step: 0.1 dB |

### 9.2.1.40A Measurement Availability Indicator

Void.

### 9.2.1.40B Measurement Change Time

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Time Scale* | M | | | |
| *>millisecond* | | | | |
| >>Measurement Change Time Value | M | | INTEGER (1..6000,…) | Unit: ms<br>Range: 10..60000 ms<br>Step: 10 ms |

### 9.2.1.41 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Filter Coefficient | | | ENUMERATED ( 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19,...) | |

### 9.2.1.41A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Time Scale* | M | | | |
| *>millisecond* | | | | |
| >>Measurement Hysteresis Time Value | M | | INTEGER (1..6000,…) | Unit: ms<br>Range: 10..60000 ms<br>Step: 10 ms |

### 9.2.1.42 Measurement ID

The Measurement ID uniquely identifies any measurement per (Node B or Communication) Control Port.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement ID | | | INTEGER (0..2^20-1) | |

### 9.2.1.43 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Measurement Increase/Decrease Threshold* | M | | | | – | |
| *>Received Total Wide Band Power* | | | | | – | |
| >>Received Total Wide Band Power | M | | INTEGER (0..620) | Unit: dB<br>Range: 0..62 dB<br>Step: 0.1 dB | – | |
| *>Transmitted Carrier Power* | | | | | – | |
| >>Transmitted Carrier Power | M | | INTEGER (0..100) | According to mapping in [22] and [23] | – | |
| *>Acknowledged PRACH Preambles* | | | | FDD only | – | |
| >>Acknowledged PRACH Preambles | M | | INTEGER (0..240,…) | According to mapping in [22] | – | |
| *>UL Timeslot ISCP* | | | | TDD only | – | |
| >>UL Timeslot ISCP | M | | INTEGER (0..126) | Unit: dB<br>Range: 0..63 dB<br>Step: 0.5 dB | – | |
| *>SIR* | | | | | – | |
| >>SIR | M | | INTEGER (0..62) | Unit: dB<br>Range: 0..31 dB<br>Step: 0.5 dB | – | |
| *>SIR Error* | | | | FDD only | – | |
| >>SIR Error | M | | INTEGER (0..124) | Unit: dB<br>Range: 0..62 dB<br>Step: 0.5 dB | – | |
| *>Transmitted Code Power* | | | | | – | |
| >>Transmitted Code Power | M | | INTEGER (0..112,…) | Unit: dB<br>Range: 0..56 dB<br>Step: 0.5 dB | – | |
| *>RSCP* | | | | TDD only | – | |
| >>RSCP | M | | INTEGER (0..126) | Unit: dB<br>Range: 0..63 dB<br>Step: 0.5 dB | – | |
| *>Round Trip Time* | | | | FDD only | – | |
| >>Round Trip Time | M | | INTEGER (0..32766) | Unit: chips<br>Range: 0 .. 2047.875 chips<br>Step: 0.625 chips | – | |
| *>Not Used 1* | | | NULL | This choice shall not be used. Reject procedure if received. | – | |
| *>Not Used 2* | | | NULL | This choice shall not be used. Reject procedure if received. | – | |
| *>Additional Measurement Thresholds* | | | | | – | |
| *>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission* | | | | | – | |
| >>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission | M | | INTEGER (0..100) | According to mapping in [22], measurement 'Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission" | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | and mapping in [23], measurement 'Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission" | | |
| *>>Transmitted Carrier Power For Cell Portion* | | | | FDD only | – | |
| >>>Transmitted Carrier Power For Cell Portion | M | | INTEGER (0..100) | Mapping identical to the one for Transmitted Carrier Power measurement in [22] | YES | reject |
| *>>Received Total Wide Band Power For Cell Portion* | | | | FDD only | – | |
| >>>Received Total Wide Band Power For Cell Portion | M | | INTEGER (0..620) | Unit: dB<br>Range: 0..62 dB<br>Step: 0.1 dB | YES | reject |
| *>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion* | | | | FDD only | – | |
| >>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion | M | | INTEGER (0..100) | Mapping identical to the one for Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission measurement in [22] | YES | reject |
| *>>UpPTS interference* | | | | 1.28Mcps TDD Only | – | |
| >>>UpPTS interference Value | M | | INTEGER (0..127,…) | According to mapping in [23] | YES | reject |

### 9.2.1.43A Measurement Recovery Behavior

This IE controls the Measurement Recovery Behavior.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Recovery Behavior | | | NULL | |

### 9.2.1.43B Measurement Recovery Reporting Indicator

This IE indicates the Measurement Recovery Reporting.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Recovery Reporting Indicator | | | NULL | |

### 9.2.1.43C Measurement Recovery Support Indicator

This IE indicates the Measurement Recovery Support.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Recovery Support Indicator | | | NULL | |

### 9.2.1.44 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E, F or On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Measurement Threshold* | M | | | | – | |
| *>Received Total Wide Band Power* | | | | | – | |
| >>Received Total Wide Band Power | M | | INTEGER (0..621) | According to mapping in [22] and [23] | – | |
| *>Transmitted Carrier Power* | | | | | – | |
| >>Transmitted Carrier Power | M | | INTEGER (0..100) | According to mapping in [22] and [23] | – | |
| *>Acknowledged PRACH Preambles* | | | | FDD only | – | |
| >>Acknowledged PRACH Preambles | M | | INTEGER (0..240,…) | According to mapping in [22] | – | |
| *>UL Timeslot ISCP* | | | | TDD only | – | |
| >>UL Timeslot ISCP | M | | INTEGER (0..127) | According to mapping in [23] | – | |
| *>SIR* | | | | | – | |
| >>SIR | M | | INTEGER (0..63) | According to mapping in [22] and [23] | – | |
| *>SIR Error* | | | | FDD only | – | |
| >>SIR Error | M | | INTEGER (0..125) | According to mapping in [22] | – | |
| *>Transmitted Code Power* | | | | | – | |
| >>Transmitted Code Power | M | | INTEGER (0..127) | According to mapping in [22] and [23] | – | |
| *>RSCP* | | | | TDD only | – | |
| >>RSCP | M | | INTEGER (0..127) | According to mapping in [23] | – | |
| *>Rx Timing Deviation* | | | | Applicable to 3.84Mcps TDD only | – | |
| >>Rx Timing Deviation | M | | INTEGER (0..8191) | According to mapping in [23] | – | |
| *>Round Trip Time* | | | | FDD only | – | |
| >>Round Trip Time | M | | INTEGER (0..32767) | According to mapping in [22] | – | |
| *>Not Used 1* | | | NULL | This choice shall not be used. Reject procedure if received. | – | |
| *>Not Used 2* | | | NULL | This choice shall not be used. Reject procedure if received. | – | |
| *>Additional Measurement Thresholds* | | | | | – | |
| *>>UTRAN GPS Timing Of Cell Frames For UE Positioning* | | | | | – | |
| >>>$T_{UTRAN-GPS}$ Measurement Threshold Information | M | | 9.2.1.64B | | YES | reject |
| *>>SFN-SFN Observed Time Difference* | | | | | – | |
| >>>SFN-SFN Measurement Threshold Information | M | | 9.2.1.53C | | YES | reject |
| *>>Rx Timing Deviation LCR* | | | | Applicable to 1.28Mcps TDD Only | – | |
| >>>Rx Timing Deviation LCR | M | | INTEGER (0..511) | According to mapping in [23] | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| *>>HS-SICH Reception Quality* | | | | Applicable to TDD Only | – | |
| >>>HS-SICH Reception Quality | M | | INTEGER (0..20) | According to mapping in [23] | YES | reject |
| *>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission* | | | | | – | |
| >>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission | M | | INTEGER (0..100) | According to mapping in [22], measurement 'Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission" and [23], measurement 'Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission" | YES | reject |
| *>>HS-DSCH Required Power* | | | | | – | |
| >>>HS-DSCH Required Power Value | M | | 9.2.1.31Iba | | YES | reject |
| *>>Transmitted Carrier Power For Cell Portion* | | | | FDD only | – | |
| >>>Transmitted Carrier Power For Cell Portion | M | | INTEGER (0..100) | Mapping identical to the one for Transmitted Carrier Power measurement in [22] | YES | reject |
| *>>Received Total Wide Band Power For Cell Portion* | | | | FDD only | – | |
| >>>Received Total Wide Band Power For Cell Portion | M | | INTEGER (0..621) | Mapping identical to the one for Received Total Wide Band Power measurement in [22] | YES | reject |
| *>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion* | | | | FDD only | – | |
| >>> Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission Value For Cell Portion | M | | INTEGER (0..100) | Mapping identical to the one for Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission measurement in [22] | YES | reject |
| *>>UpPTS interference* | | | | 1.28Mcps TDD Only | – | |
| >>>UpPTS | M | | INTEGER | According to mapping | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| interference Value | | | (0..127,…) | in [23] | | |
| *>>DL Transmission Branch Load* | | | | FDD Only | – | |
| >>>DL Transmission Branch Load Value | M | | INTEGER (0..101,…) | According to mapping in [22] | YES | reject |
| *>>HS-DSCH Required Power For Cell Portion* | | | | FDD only | – | |
| >>>HS-DSCH Required Power Value For Cell Portion | M | | HS-DSCH Required Power Value 9.2.1.31Iba | | YES | reject |
| *>>E-DCH Non-serving Relative Grant Down Commands* | | | | FDD only | – | |
| >>>E-DCH Non-serving Relative Grant Down Commands Value | M | | INTEGER (0..100,…) | Down Commands per second | YES | reject |

## 9.2.1.45 Message Discriminator

This field is used to discriminate between Dedicated NBAP and Common NBAP messages.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Message Discriminator | | | ENUMERATED ( Common, Dedicated) | |

## 9.2.1.45A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Message Structure** | | *1..<maxnooflevels>* | | The first repetition of the *Message Structure* IE corresponds to the top level of the message. The last repetition of the *Message Structure* IE corresponds to the level above the reported level for the occurred error of the message. |
| >IE ID | M | | INTEGER (0..65535) | The IE ID of this level"s IE containing the not understood or missing IE. |
| >Repetition Number | O | | INTEGER (1..256) | The *Repetition Number* IE gives, if applicable, the number of occurrences of this level"s reported IE up to and including the occurrence containing the not understood or missing IE.<br><br>Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them. |

| Range Bound | Explanation |
|---|---|
| *maxnooflevels* | Maximum number of message levels to report. The value for maxnooflevels is 256. |

### 9.2.1.46 Message Type

The Message Type uniquely identifies the message being sent.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Procedure ID** | M | *1* | | |
| >Procedure Code | M | | INTEGER (0..255) | "0" = Audit<br>"1" = Audit Required<br>"2" = Block Resource<br>"3" = Cell Deletion<br>"4" = Cell Reconfiguration<br>"5" = Cell Setup<br>"6" = Common Measurement Failure<br>"7" = Common Measurement Initiation<br>"8" = Common Measurement Report<br>"9" = Common Measurement Termination<br>"10" = Common Transport Channel Delete<br>"11" = Common Transport Channel Reconfigure<br>"12" = Common Transport Channel Setup<br>"13" = Reset<br>"14" = Compressed Mode Command<br>"16" = Dedicated Measurement Failure<br>"17" = Dedicated Measurement Initiation<br>"18" = Dedicated Measurement Report<br>"19" = Dedicated Measurement Termination<br>"20" = Downlink Power Control<br>"21" = Error Indication (For Dedicated Procedures)<br>"23" = Radio Link Addition<br>"24" = Radio Link Deletion<br>"25" = Radio Link Failure<br>"26" = Radio Link Restoration<br>"27" = Radio Link Setup<br>"28" = Resource Status Indication<br>"29" = Synchronised Radio Link Reconfiguration Cancellation<br>"30" = Synchronised Radio Link Reconfiguration Commit<br>"31" = Synchronised Radio Link Reconfiguration Preparation<br>"32" = System Information Update<br>"33" = Unblock Resource<br>"34" = Unsynchronised Radio Link Reconfiguration<br>"35" = Error Indication (For Common Procedures)<br>"37" = Physical Shared Channel Reconfiguration<br>"38" = Downlink Power Timeslot Control<br>"39" = Radio Link Preemption<br>"40" = Information Exchange Failure<br>"41" = Information Exchange Initiation<br>"42" = Information Exchange Termination<br>"43" = Information Reporting<br>"44" = Cell Synchronisation Adjustment<br>"45" = Cell Synchronisation Initiation<br>"46" = Cell Synchronisation Reconfiguration<br>"47" = Cell Synchronisation Reporting<br>"48" = Cell Synchronisation Termination<br>"49" = Cell Synchronisation Failure<br>"50" = Bearer Rearrangement<br>"51" = Radio Link Activation<br>'52' = Radio Link Parameter Update<br>"53" = MBMS Notification Update |
| >Ddmode | M | | ENUMERATED (<br>TDD,<br>FDD,<br>Common,<br>…) | Common = common to FDD and TDD. |
| Type of Message | M | | ENUMERATED ( | |

| | | | | |
|---|---|---|---|---|
| | | | Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome) | |

### 9.2.1.46a MICH CFN

The MICH CFN indicates the Connection Frame Number for the MICH. It corresponds to the Cell SFN of the frame in which the start of the S-CCPCH frame is located, see ref [7].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MICH CFN | | | INTEGER (0..4095) | |

### 9.2.1.46A Minimum DL Power Capability

This parameter indicates the minimum DL power capability for a local cell within the Node B. The reference point is the antenna connector. If Transmit Diversity can be used in the local cell, the parameter indicates the minimum for the linear sum of the power that can be used on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Minimum DL Power Capability | | | INTEGER (0..800) | Unit: dBm<br>Range: -30 .. +50 dBm<br>Step: 0.1 dB |

### 9.2.1.47 Minimum Spreading Factor

This parameter indicates the minimum spreading factor supported at a cell within the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Minimum Spreading Factor | | | ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512) | [TDD – Mapping scheme for the minimum spreading factor 1 and 2:<br>'256' means 1<br>'512' means 2] |

### 9.2.1.47a Modification Period

The Modification Period of the MICH, see ref. [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Modification Period | | | ENUMERATED (1280, 2560, 5120, 10240,…) | Unit: ms |

### 9.2.1.47A N_INSYNC_IND

This parameter is used by the Node B for achievement/re-achievement of UL synchronisation on the Uu interface as defined in ref. [10] and [21].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| N_INSYNC_IND | | | INTEGER (1..256) | |

### 9.2.1.47B N_OUTSYNC_IND

This parameter defines the number of consecutive out-of-sync indications after which the timer T_RLFAILURE shall be started (see also ref. [10] and [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| N_OUTSYNC_IND | | | INTEGER (1..256) | |

### 9.2.1.47C Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UC-Id | M | | 9.2.1.65B | |
| UARFCN | M | | 9.2.1.65 | Corresponds to Nd [14] |
| Primary Scrambling Code | M | | 9.2.2.34 | |

### 9.2.1.47D Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot* IE and *Midamble Shift And Burst Type* IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UC-Id | M | | 9.2.1.65B | |
| UARFCN | M | | 9.2.1.65 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.3.4 | |
| Time Slot | O | | 9.2.3.23 | |
| Midamble Shift And Burst Type | O | | 9.2.3.7 | |

### 9.2.1.47E Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the neighbouring 1.28Mcps TDD cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot LCR* IE and *Midamble Shift LCR* IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UC-Id | M | | 9.2.1.65B | |
| UARFCN | M | | 9.2.1.65 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.3.4 | |
| Time Slot LCR | O | | 9.2.3.24A | |
| Midamble Shift LCR | O | | 9.2.3.7A | |

### 9.2.1.47F NI

The *NI* IE provides a Notification Indicator determined as specified in [37].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| NI | | | INTEGER (0..65535) | |

### 9.2.1.48 Node B Communication Context ID

The Node B Communication Context ID is the identifier of the Communication Context in the Node B, it corresponds to the dedicated resources which are necessary for an UE using one or more dedicated channels in a given Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Node B Communication Context ID | | | INTEGER (0..2^20-1) | "2^20-1" is a reserved value indicating all the existing and future Node B Communication Contexts that can be reached by the Communication Control Port (All NBCC). |

### 9.2.1.49 Payload CRC Presence Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Payload CRC Presence Indicator | | | ENUMERATED ( CRC Included, CRC Not Included, …) | |

### 9.2.1.49A PICH Power

The *PICH Power* IE indicates a power level relative to the [FDD - Primary CPICH power] [TDD - Primary CCPCH power] configured in a cell. If Transmit Diversity is applied to the PICH (resp. the MICH), the *PICH Power* IE indicates the power offset between the linear sum of the power for the PICH (resp. the MICH) on all branches and the [FDD - Primary CPICH power] [TDD - Primary CCPCH power] configured in a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PICH Power | | | INTEGER (-10..+5) | Unit: dB<br>Range: -10 .. +5 dB<br>Step: 1dB |

### 9.2.1.49B Power Local Cell Group ID

The Power Local Cell Group ID represents resources in the Node B which have been pooled from a DL power capability point of view.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Local Cell Group ID | | | Local Cell ID 9.2.1.38 | |

### 9.2.1.49C Priority Queue ID

The Priority Queue ID provides the identity of the Priority Queue. The Priority Queue ID is unique across all MAC-d flows that are currently allocated for one Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Priority Queue ID | | | INTEGER (0..7) | |

### 9.2.1.49D Process Memory Size

The *Process Memory Size* IE is the size of an HARQ process in the Node B expressed in bits. It provides the maximum number of soft channel bits in the virtual IR buffer [8] or [34].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Process Memory Size | | | ENUMERATED (<br>800, 1600, 2400, 3200,<br>4000, 4800, 5600, 6400,<br>7200, 8000, 8800, 9600,<br>10400, 11200, 12000,<br>12800, 13600, 14400,<br>15200, 16000, 17600,<br>19200, 20800, 22400,<br>24000, 25600, 27200,<br>28800, 30400, 32000,<br>36000, 40000, 44000,<br>48000, 52000, 56000,<br>60000, 64000, 68000,<br>72000, 76000, 80000,<br>88000, 96000, 104000,<br>112000, 120000, 128000,<br>136000, 144000, 152000,<br>160000, 176000, 192000,<br>208000, 224000, 240000,<br>256000, 272000, 288000,<br>304000,…) | |

### 9.2.1.50 Puncture Limit

The Puncture Limit limits the amount of puncturing that can be applied in order to minimise the number of dedicated physical channels.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Puncture Limit | | | INTEGER (0..15) | Unit: %<br>Range: 40..100 %<br>Step: 4 %<br>100% means no puncturing<br>[FDD - Value "0" is not applicable for E-DPCH. ] |

### 9.2.1.50A QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| QE-Selector | | | ENUMERATED (<br>Selected,<br>Non-Selected) | |

### 9.2.1.51 Report Characteristics

The report characteristics define how the reporting shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Report Characteristics* | M | | | | – | |
| *>On Demand* | | | NULL | | – | |
| *>Periodic* | | | | | – | |
| >>Report Periodicity | M | | 9.2.1.51a | The frequency with which the Node B shall send measurement reports. | – | |
| *>Event A* | | | | | – | |
| >>Measurement Threshold | M | | 9.2.1.44 | The threshold for which the Node B shall trigger a measurement report. | – | |
| >>Measurement Hysteresis Time | O | | 9.2.1.41A | | – | |
| *>Event B* | | | | | – | |
| >>Measurement Threshold | M | | 9.2.1.44 | The threshold for which the Node B shall trigger a measurement report. | – | |
| >>Measurement Hysteresis Time | O | | 9.2.1.41A | | – | |
| *>Event C* | | | | | – | |
| >>Measurement Increase/Decrease Threshold | M | | 9.2.1.43 | | – | |
| >>Measurement Change Time | M | | 9.2.1.40B | The time the measurement entity shall rise on (in ms), in order to trigger a measurement report. | – | |
| *>Event D* | | | | | – | |
| >>Measurement Increase/Decrease Threshold | M | | 9.2.1.43 | | – | |
| >>Measurement Change Time | M | | 9.2.1.40B | The time the measurement entity shall fall (in ms), in order to trigger a measurement report. | – | |
| *>Event E* | | | | | – | |
| >>Measurement Threshold 1 | M | | Measurement Threshold 9.2.1.44 | | – | |
| >>Measurement Threshold 2 | O | | Measurement Threshold 9.2.1.44 | | – | |
| >>Measurement Hysteresis Time | O | | 9.2.1.41A | | – | |
| >>Report Periodicity | O | | 9.2.1.51a | The frequency with which the Node B shall send measurement reports. | – | |
| *>Event F* | | | | | – | |
| >>Measurement Threshold 1 | M | | Measurement Threshold 9.2.1.44 | | – | |
| >>Measurement Threshold 2 | O | | Measurement Threshold 9.2.1.44 | | – | |
| >>Measurement Hysteresis Time | O | | 9.2.1.41A | | – | |
| >>Report Periodicity | O | | 9.2.1.51a | The frequency with which the Node B shall send | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | measurement reports. | | |
| *>Additional Report Characteristics* | | | | | – | |
| *>>On Modification* | | | | | – | |
| **>>>On Modification** | | *1* | | | YES | reject |
| >>>>Measurement Threshold | M | | 9.2.1.44 | | – | |

## 9.2.1.51a Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Report Periodicity Scale* | M | | | |
| *>millisecond* | | | | |
| >>Report Periodicity Value | M | | INTEGER (1..6000,…) | Unit: ms<br>Range: 10..60000 ms<br>Step: 10 ms |
| *>minute* | | | | |
| >>Report Periodicity Value | M | | INTEGER (1..60,…) | Unit: min<br>Range: 1..60 min<br>Step: 1 min |

## 9.2.1.51A Requested Data Value

The *Requested Data Value* IE contains the relevant data concerning the ongoing information exchange. The *Requested Data Value* IE shall include at least one of the following IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DGPS Corrections | O | | 9.2.1.24B | |
| GPS Navigation Model & Time Recovery | O | | 9.2.1.31B | |
| GPS Ionospheric Model | O | | 9.2.1.31C | |
| GPS UTC Model | O | | 9.2.1.31D | |
| GPS Almanac | O | | 9.2.1.31F | |
| GPS Real-Time Integrity | O | | 9.2.1.31E | |
| GPS RX Pos | O | | 9.2.1.31G | |

## 9.2.1.51B Requested Data Value Information

The *Requested Data Value Information* IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Information Availability Indicator* | M | | | |
| *>Information Available* | | | | |
| >>Requested Data Value | M | | 9.2.1.51A | |
| *>Information Not Available* | | | NULL | |

### 9.2.1.52 Resource Operational State

The Resource Operational State is used to indicate the current operational state of the associated resource following a Node B failure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Resource Operational State | | | ENUMERATED ( Enabled, Disabled) | When a resource is marked as disabled, then its child resources are implicitly disabled. Cell Resource hierarchy can be referred to [6]. |

### 9.2.1.52A Retention Priority

Void.

### 9.2.1.52B RLC Mode

The *RLC Mode* IE indicates the RLC Mode used for a Priority Queue.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RLC Mode | | | ENUMERATED ( RLC-AM, RLC-UM,…) | |

### 9.2.1.53 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RL ID | | | INTEGER (0..31) | |

### 9.2.1.53a RNC-Id

This is the identifier of one RNC in UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RNC-Id | | | INTEGER (0..4095) | |

### 9.2.1.53A SFN

System Frame Number of the cell, see ref. [17].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SFN | | | INTEGER (0..4095) | |

### 9.2.1.53B Segment Type

Segment type as defined in [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Segment Type | | | ENUMERATED ( First segment, First segment short, Subsequent segment, Last segment, Last segment short, Complete SIB, Complete SIB short, …) | |

### 9.2.1.53C SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SFN-SFN Change Limit | O | | INTEGER(1..256) | Change of SFN-SFN value compared to previously reported value, which shall trigger a new report.<br>Unit: chip<br>Step: 1/16 chip |
| Predicted SFN-SFN Deviation Limit | O | | INTEGER(1..256) | Deviation of the predicated SFN-SFN from the latest measurement result, which shall trigger a new report.<br>Unit: chip<br>Step: 1/16 chip |

### 9.2.1.53D SFN-SFN Measurement Time Stamp

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Mode* | M | | | |
| *>FDD* | | | | |
| >>SFN | M | | 9.2.1.53A | Indicates the SFN of the reference cell at which the measurement has been performed. |
| *>TDD* | | | | |
| >>SFN | M | | 9.2.1.53A | Indicates the SFN of the reference cell at which the measurement has been performed. |
| >>Time Slot | M | | 9.2.3.23 | Indicates the Time Slot of the reference cell at which this measurement has been performed. |

### 9.2.1.53E SFN-SFN Measurement Value Information

The *SFN-SFN Measurement Value Information* IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information** | | *1..<maxnoMeasNCell>* | | |
| >UC-Id | M | | 9.2.1.65B | |
| >SFN-SFN Value | M | | 9.2.1.53F | |
| >SFN-SFN Quality | O | | INTEGER (0..255) | Indicates the standard deviation (std) of the SFN-SFN Observed Time Difference measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu = E[x]$ is the expectation value of x. |
| >SFN-SFN Drift Rate | M | | INTEGER (-100..+100) | Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell. |
| >SFN-SFN Drift Rate Quality | O | | INTEGER (0..100) | Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x. |
| >SFN-SFN Measurement Time Stamp | M | | 9.2.1.53D | |
| **Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information** | | *0..<maxnoMeasNCell-1>* | | |
| >UC-Id | M | | 9.2.1.65B | |

| Range Bound | Explanation |
|---|---|
| *maxnoMeasNCell* | Maximum number of neighbouring cells that can be measured on |

## 9.2.1.53F SFN-SFN Value

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Mode* | M | | | |
| *>FDD* | | | | |
| >>SFN-SFN | M | | INTEGER (0..614399) | According to mapping in [22]. |
| *>TDD* | | | | |
| >>SFN-SFN | M | | INTEGER (0..40961) | According to mapping in [23]. |

### 9.2.1.53G RL Specific DCH Information

The *RL Specific DCH Information* IE provides RL specific DCH Information for DCHs. In the case of a set of co-ordinated DCHs requiring a new transport bearer on Iub, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **RL Specific DCH Information** | | *1..<maxnoofDCHs>* | | |
| >DCH ID | M | | 9.2.1.20 | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE |

### 9.2.1.53H Scheduling Priority Indicator

Indicates the relative priority of the HS-DSCH [FDD - or E-DCH data frame]. Used by the Node B when scheduling HS-DSCH[FDD - or E-DCH].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Scheduling Priority Indicator | | | INTEGER (0..15) | Relative priority of the HS-DSCH [FDD - or E-DCH data frame]:<br>"0" =Lowest Priority<br>…<br>"15" =Highest Priority |

### 9.2.1.53I SID

The *SID* IE provides the identity of the Size Index.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SID | | | INTEGER (0..7) | |

### 9.2.1.54 SIB Deletion Indicator

Void.

### 9.2.1.55 SIB Originator

Indicates if the Node B shall fill in the SIB information or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SIB Originator | | | ENUMERATED (<br>Node B,<br>CRNC,<br>…) | |

### 9.2.1.55A Signalling Bearer Request Indicator

The *Signalling Bearer Request Indicator* IE indicates if a new signalling bearer needs to be established for the control of Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Signalling Bearer Request Indicator | | | ENUMERATED (Bearer Requested) | |

### 9.2.1.56 Shutdown Timer

The shutdown timer shall indicate the length of time available to the CRNC to perform the block of a resource when a Normal priority block is requested.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Shutdown Timer | | | INTEGER (1..3600) | Unit: second |

### 9.2.1.56a T1

The *T1* IE is used as described in ref [32] subclause 11.6.2.3.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| T1 | | | ENUMERATED (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 200, 300, 400, …) | Unit: ms<br>Node B may use this value to stop the re-transmission of the corresponding MAC-hs PDU. |

### 9.2.1.56A T_RLFAILURE

The Radio Link Failure procedure shall be triggered after a period of time T_RLFAILURE has elapsed with a persisting out-of-sync indication (see also ref. [10] and [21]).

| Information Element/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| T_RLFAILURE | | | INTEGER (0..255) | Unit: second<br>Range: 0 .. 25.5 s<br>Step: 0.1 s |

### 9.2.1.56B Start Of Audit Sequence Indicator

Indicates if the AUDIT REQUEST message initiates a new audit sequence or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Start Of Audit Sequence Indicator | | | ENUMERATED ( Start Of Audit Sequence, Not Start Of Audit Sequence) | |

### 9.2.1.56C TFCI2 Bearer Request Indicator

Void.

### 9.2.1.57 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [19].]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TFCI presence | | | ENUMERATED ( Present, Not Present) | |

### 9.2.1.58 TFCS (Transport Format Combination Set)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable for DL Transport Channels.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *TFCS Values* | M | | | |
| *>Always Used* | | | | This choice is always made. |
| **>>TFCS** | | *1..<maxnoofTFCs>* | | The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on. [TDD - The first entry (for TFCI 0) should be ignored by the receiver.] |
| >>>CTFC | M | | 9.2.1.18A | |
| >>>CHOICE *Gain Factors* | C-PhysChan | | | |
| *>>>>Signalled Gain Factors* | | | | |
| >>>>>CHOICE *Mode* | M | | | |
| *>>>>>>FDD* | | | | |
| >>>>>>>Gain Factor $\beta_C$ | M | | INTEGER (0..15) | For UL DPCCH or control part of PRACH; mapping in accordance to [9] |
| >>>>>>>Gain Factor $\beta_D$ | M | | INTEGER (0..15) | For UL DPDCH or data part of PRACH: mapping in accordance to [9] |
| *>>>>>>TDD* | | | | |
| >>>>>>>Gain Factor $\beta$ | M | | iNTEGER (0..15) | For UL DPCH in TDD; mapping in accordance to [20]. |
| >>>>>Reference TFC nr | O | | INTEGER (0..3) | If this TFC is a reference TFC, this IE indicates the reference number. |
| *>>>>Computed Gain Factors* | | | | |
| >>>>>Reference TFC nr | M | | INTEGER (0..3) | Indicates the reference TFC to be used to calculate the gain factors for this TFC. |
| *>Not Used* | | | | This choice shall never be made by the CRNC and the Node B shall consider the procedure as failed if it is received. |

| Condition | Explanation |
|---|---|
| PhysChan | The IE shall be present if the TFCS concerns a UL DPCH or PRACH channel . |

| Range Bound | Explanation |
|---|---|
| *maxnoofTFCs* | The maximum number of Transport Format Combinations |

### 9.2.1.58A TNL QoS

This IE indicates the TNL QoS characteristics of the transport bearer for the uplink data traffic.

When the *DS Field* IE is used, the value of this IE is configurable by the operator.

When the *Generic Traffic Category* IE is used, generic traffic categories are implementation-specific (e.g. they may be determined by the sender from the application parameters). The value assigned to each of these categories and sent in the *Generic Traffic Category* IE is configurable by the operator, as well as the mapping of this value to DS field [35] at the Node B side.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *TNL QoS type* | M | | | |
| *>DS Field* | | | | |
| >>DS Field | M | | BIT STRING (8) | DS Field as defined in [35]. Typically used when the NodeB and its CRNC are in the same DS domain as defined in [36]. |
| *>Generic Traffic Category* | | | | |
| >>Generic Traffic Category | M | | BIT STRING (8) | |

### 9.2.1.59 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD - The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the *2nd Interleaving Mode* IE.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Dynamic Transport Format Information** | | *1..<maxTFcount>* | | The first instance of the parameter corresponds to TFI zero, the second to 1 and so on. |
| >Number of Transport Blocks | M | | INTEGER (0..512) | |
| >Transport Block Size | C-Blocks | | INTEGER (0..5000) | Unit: Bits |
| >CHOICE *Mode* | M | | | |
| >>*TDD* | | | | |
| **>>>Transmission Time Interval Information** | C-TTIdynamic | *1..<maxTTIcount>* | | |
| >>>>Transmission Time Interval | M | | ENUMERATED (10, 20, 40, 80,…) | Unit: ms |
| **Semi-Static Transport Format Information** | | 1 | | |
| >Transmission Time Interval | M | | ENUMERATED (10, 20, 40, 80, dynamic,…,5) | Unit: ms;<br>Value "dynamic' for TDD only;<br>Value "5' for LCR TDD only;<br>For FDD DCH, the value "80" is applicable only when *DL DPCH Slot Format* IE indicates a slot format with SF=512. |
| >Type Of Channel Coding | M | | ENUMERATED ( No codingTDD, Convolutional, Turbo, …) | [FDD - The value "No codingTDD" shall be treated as logical error if received] |
| >Coding Rate | C-Coding | | ENUMERATED (1/2, 1/3,…) | |
| >Rate Matching Attribute | M | | INTEGER (1..maxRM) | |
| >CRC Size | M | | ENUMERATED (0, 8, 12, 16, 24,…) | |
| >CHOICE *Mode* | M | | | |
| >>*TDD* | | | | |
| >>>2nd Interleaving Mode | M | | ENUMERATED ( Frame related, Timeslot related, …) | |

| Condition | Explanation |
|---|---|
| Blocks | The IE shall be present if the *Number Of Transport Blocks* IE is set to a value greater than 0. |
| Coding | The IE shall be present if the *Type Of Channel Coding* IE is set to "Convolutional" or "Turbo". |
| TTIdynamic | The IE shall be present if the *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE is set to "dynamic'. |

| Range Bound | Explanation |
|---|---|
| *maxTFcount* | Maximum number of different Transport Formats that can be included in the Transport Format Set for one transport channel |
| maxRM | Maximum number that could be set as rate matching attribute for a transport channel |
| *maxTTIcount* | The amount of different TTIs that are possible for that Transport Format |

### 9.2.1.60 ToAWE

TOAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. TOAWE is defined with a positive value relative Latest Time of Arrival (LTOA). A data frame arriving after TOAWE gives a Timing Adjustment Control frame response.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| ToAWE | | | INTEGER (0..2559) | Unit: ms |

### 9.2.1.61 ToAWS

TOAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. TOAWS is defined with a positive value relative Time of Arrival Window Endpoint (TOAWE). A data frame arriving before TOAWS gives a Timing Adjustment Control frame response.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| ToAWS | | | INTEGER (0..1279) | Unit: ms |

### 9.2.1.62 Transaction ID

The transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same transaction ID.

The transaction ID is determined by the initiating peer of a procedure. For common procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and signalled over the same Node B Control Port. For dedicated procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and initiated towards the same Node B/CRNC context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Transaction ID Length* | | | | The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long"). |
| *>Short* | | | | |
| >>Transaction ID Value | M | | INTEGER (0..127) | |
| *>Long* | | | | |
| >>Transaction ID Value | M | | INTEGER (0..32767) | |

### 9.2.1.62A Transport Bearer Request Indicator

Indicates whether a new transport bearer needs to be established for carrying the concerned transport channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transport Bearer Request Indicator | | | ENUMERATED ( Bearer Requested, Bearer Not Requested, …) | |

### 9.2.1.63 Transport Layer Address

In case of transport bearer establishment with ALCAP [2][31], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [2][31].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see ref. [2][31].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transport Layer Address | | | BIT STRING (1..160, …) | |

### 9.2.1.64 TSTD Indicator

Indicates if TSTD shall be active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TSTD Indicator | | | ENUMERATED ( active, inactive) | |

### 9.2.1.64A $T_{UTRAN-GPS}$ Measurement Value Information

The $T_{UTRAN-GPS}$ *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **$T_{UTRAN-GPS}$** | | *1* | | Indicates the UTRAN GPS Timing of Cell Frames forUE Positioning.<br>According to mapping in [22].<br>Significant values range from 0 to 37158911999999. |
| >MS | M | | INTEGER (0..16383) | Most Significant Part |
| >LS | M | | INTEGER (0..4294967295) | Least Significant Part |
| $T_{UTRAN-GPS}$ Quality | O | | INTEGER (0..255) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip.<br>$T_{UTRAN-GPS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and $\mu = E[x]$ is the expectation value of x. |
| $T_{UTRAN-GPS}$ Drift Rate | M | | INTEGER (-50..+50) | Indicates the $T_{UTRAN-GPS}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock. |
| $T_{UTRAN-GPS}$ Drift Rate Quality | O | | INTEGER (0..50) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second.<br>$T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and $\mu = E[x]$ is the expectation value of x. |

### 9.2.1.64B $T_{UTRAN-GPS}$ Measurement Threshold Information

The $T_{UTRAN-GPS}$ Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $T_{UTRAN-GPS}$ Change Limit | O | | INTEGER (1..256) | Change of $T_{UTRAN-GPS}$ value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip. |
| Predicted $T_{UTRAN-GPS}$ Deviation Limit | O | | INTEGER (1..256) | Deviation of the predicated $T_{UTRAN-GPS}$ from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip. |

### 9.2.1.64C $T_{UTRAN-GPS}$ Accuracy Class

The *$T_{UTRAN-GPS}$ Accuracy Class* IE indicates the accuracy class of the UTRAN GPS Timing of Cell Frames for UE Positioning measurement.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $T_{UTRAN-GPS}$ Accuracy Class | | | ENUMERATED ( Accuracy Class A, Accuracy Class B, Accuracy Class C, …) | More information about $T_{UTRAN-GPS}$ Measurement Accuracy Class is included in [22]. |

### 9.2.1.65 UARFCN

Designates the central frequency of the channel number.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UARFCN | | | INTEGER (0..16383,…) | Unit: MHz<br>Range: 0 .. 3276.6 MHz<br>Step: 0.2 MHz<br>(subclause 5.4.3 in [14] and [15]) |

### 9.2.1.65A UL Capacity Credit

The capacity credit indicates to the CRNC the Uplink capacity of a Local Cell or a Local Cell Group.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL Capacity Credit | | | INTEGER (0..65535) | |

### 9.2.1.65B UTRAN Cell Identifier (UC-Id)

The UC-Id (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RNC-Id | M | | 9.2.1.53a | |
| C-Id | M | | 9.2.1.9 | |

### 9.2.1.66 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL FP Mode | | | ENUMERATED (<br>Normal,<br>Silent,<br>…) | |

### 9.2.1.67 UL interference level

Void.

### 9.2.1.67A UL SIR

The UL SIR indicates a received UL SIR.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL SIR | | | INTEGER (-82..173) | Value = UL SIR/10<br>Unit: dB<br>Range: -8.2 .. +17.3 dB<br>Step: 0.1 dB |

### 9.2.1.68 Unidirectional DCH Indicator

The *Unidirectional DCH Indicator* IE indicates that the DCH is unidirectional.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Unidirectional DCH Indicator | | | ENUMERATED<br>(Downlink DCH only,<br>Uplink DCH only) | |

## 9.2.2 FDD specific parameters

### 9.2.2.a ACK-NACK Repetition Factor

The *ACK-NACK Repetiton Factor* IE indicates the number of consecutive repetitions of the ACK and NACK.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| ACK-NACK Repetition Factor | | | INTEGER (1..4,...) | Step: 1 |

### 9.2.2.b ACK Power Offset

The *ACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ ACK information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| ACK Power Offset | | | INTEGER (0..8,…) | According to mapping in ref. [9] subclause 4.2.1. |

### 9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CM Configuration Change CFN | M | | CFN 9.2.1.7 | |
| **Transmission Gap Pattern Sequence Status** | | *0..<maxTGPS>* | | |
| >TGPS Identifier | M | | INTEGER (1..maxTGPS) | If the group is not present, none of the pattern sequences are activated. References an already defined sequence. |
| >TGPRC | M | | INTEGER (0..511) | The number of transmission gap patterns within the Transmission Gap Pattern Sequence. "0"=Infinity |
| >TGCFN | M | | CFN 9.2.1.7 | Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence. |

| Range Bound | Explanation |
|---|---|
| *maxTGPS* | Maximum number of active pattern sequences. Value 6. |

### 9.2.2.B Adjustment Period

The *Adjustment Period* IE defines the period to be used for power balancing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Adjustment Period | | | INTEGER (1..256) | Unit: Frames |

### 9.2.2.C Adjustment Ratio

The *Adjustment Ratio* IE *(Radj)* defines the convergence rate used for the associated Adjustment Period.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Adjustment Ratio | | | INTEGER (0..100) | Unit: None<br>Range: 0..1<br>Step: 0.01 |

### 9.2.2.D AICH Power

The *AICH Power* IE indicates a power level (measured as the power per transmitted acquisition indicator when several AIs are transmitted in parallel) relative to the primary CPICH power configured in a cell. If Transmit Diversity is applied to the AICH, the *AICH Power* IE indicates the power offset between the linear sum of the power for the AICH on all branches and the Primary CPICH power configured in a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| AICH Power | | | INTEGER (-22..+5) | Unit: dB<br>Range: -22 .. +5 dB<br>Step: 1 dB |

### 9.2.2.1 AICH Transmission Timing

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| AICH Transmission Timing | | | ENUMERATED (0, 1) | See parameter AICH_Transmission_Timing in ref. [7]. |

### 9.2.2.1A AP Preamble Signature

Void.

### 9.2.2.1B AP Sub Channel Number

Void.

### 9.2.2.1Ba Best Cell Portions

*Best Cell Portions* IE indicates the best received cell portions and their SIR values when Cell Portions are defined in the cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Best Cell Portions** | | *1..<maxnoofBestCellPortions>* | | |
| >Cell Portion ID | M | | 9.2.2.1Ca | |
| >SIR Value | M | | INTEGER (0..63) | According to mapping in [22] and [23] |

| Range Bound | Explanation |
|---|---|
| *maxnoofBestCellPortions* | Maximum number of reported Best Received Cell Portions |

### 9.2.2.1Bb Bundling Mode Indicator

The Bundling Mode Indicator indicates whether the bundling shall be done or shall not be done for Iub.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Bundling Mode Indicator | | | ENUMERATED ( Bundling, No bundling) | The value "Bundling" is applicable only when E-TTI indicates "2ms". |

### 9.2.2.1C CD Sub Channel Numbers

Void.

### 9.2.2.1Ca Cell Portion ID

Cell Portion ID is the unique identifier for a cell portion within a cell. See [4].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Portion ID | | | INTEGER (0..63,…) | |

### 9.2.2.1D Channel Assignment Indication

Void.

### 9.2.2.2 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip offset is used as offset relative to the Primary CPICH timing for the DL DPCH or for the F-DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Chip Offset | | | INTEGER (0..38399) | Unit: chips |

### 9.2.2.2A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Closed Loop Timing Adjustment Mode | | | ENUMERATED ( Offset1, Offset2, …) | According to ref. [10] subclause 7.1: "Offset1" = slot(j+1)mod15 "Offset2" = slot(j+2)mod15 |

### 9.2.2.3 Common Channels Capacity Consumption Law

Void.

### 9.2.2.3A Compressed Mode Deactivation Flag

The Compressed Mode Deactivation Flag indicates whether Compressed Mode shall be deactivated or not in the new RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Compressed Mode Deactivation Flag | | | ENUMERATED ( Deactivate, Maintain Active) | |

### 9.2.2.4 Compressed Mode Method

Void.

### 9.2.2.4A CPCH Allowed Total Rate

Void.

### 9.2.2.4B CPCH Scrambling Code Number

Void.

### 9.2.2.4C CPCH UL DPCCH Slot Format

Void.

### 9.2.2.4Ca CQI Power Offset

The *CQI Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slots carrying CQI information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CQI Power Offset | | | INTEGER (0..8,…) | According to mapping in ref. [9] subclause 4.2.1. |

### 9.2.2.4Cb CQI Repetition Factor

The *CQI Repetiton Factor* IE indicates the number of consecutive repetitions of the CQI.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CQI Repetition Factor | | | INTEGER (1..4,...) | Step: 1 |

### 9.2.2.4D DCH FDD Information

The *DCH FDD Information* IE provides information for DCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DCH FDD Information** | | *1..<maxnoofDCHs>* | | | – | |
| >Payload CRC Presence Indicator | M | | 9.2.1.49 | | – | |
| >UL FP Mode | M | | 9.2.1.66 | | – | |
| >ToAWS | M | | 9.2.1.61 | | – | |
| >ToAWE | M | | 9.2.1.60 | | – | |
| **>DCH Specific Info** | | *1..<maxnoofDCHs>* | | | – | |
| >>DCH ID | M | | 9.2.1.20 | | – | |
| >>Transport Format Set | M | | 9.2.1.59 | For UL | – | |
| >>Transport Format Set | M | | 9.2.1.59 | For DL | – | |
| >>Allocation/Retention Priority | M | | 9.2.1.1A | | – | |
| >>Frame Handling Priority | M | | 9.2.1.30 | | – | |
| >>QE-Selector | M | | 9.2.1.50A | | – | |
| >>Unidirectional DCH Indicator | O | | 9.2.1.68 | | YES | reject |
| >TNL QoS | O | | 9.2.1.58A | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE |

### 9.2.2.4E DCHs FDD To Modify

The *DCHs FDD To Modify* IE provides information for DCHs to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DCHs FDD To Modify** | | *1..<maxnoofDCHs>* | | | – | |
| >UL FP Mode | O | | 9.2.1.66 | | – | |
| >ToAWS | O | | 9.2.1.61 | | – | |
| >ToAWE | O | | 9.2.1.60 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.62A | | – | |
| **>DCH Specific Info** | | *1..<maxnoofDCHs>* | | | – | |
| >>DCH ID | M | | 9.2.1.20 | | – | |
| >>Transport Format Set | O | | 9.2.1.59 | For the UL. | – | |
| >>Transport Format Set | O | | 9.2.1.59 | For the DL. | – | |
| >>Allocation/Retention Priority | O | | 9.2.1.1A | | – | |
| >>Frame Handling Priority | O | | 9.2.1.30 | | – | |
| >>Unidirectional DCH Indicator | O | | 9.2.1.68 | | YES | reject |
| >TNL QoS | O | | 9.2.1.58A | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE |

### 9.2.2.4F DCH Indicator For E-DCH-HSDPA Operation

The DCH Indicator For E-DCH-HSDPA Operation parameter indicates whether *DCH Information* IE should be ignored in the message in which the *DCH Indicator For E-DCH-HSDPA Operation* IE is included.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DCH Indicator For E-DCH-HSDPA Operation | | | ENUMERATED (DCH not present) | |

### 9.2.2.5 D-Field Length

Void.

### 9.2.2.6 Dedicated Channels Capacity Consumption Law

Void.

### 9.2.2.7 Diversity Control Field

Void.

### 9.2.2.8 Diversity Indication

Void.

### 9.2.2.9 Diversity Mode

Define the diversity mode to be applied.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Diversity Mode | | | ENUMERATED ( None, STTD, Closed loop mode 1, Not Used…) | The *Diversity Mode* IE shall never be set to "Not Used". If received it shall be rejected. |

### 9.2.2.10 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, accordingly to ref. [7].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL DPCH Slot Format | | | INTEGER (0..16,…) | |

### 9.2.2.10A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required or that an Initial DL DPCH Timing Adjustment has been performed by the Node B. It also indicates whether the timing adjustment consists of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL DPCH Timing Adjustment | | | ENUMERATED ( timing advance, timing delay) | The size of the timing adjustment is 256 chips. |

### 9.2.2.11 DL frame type

Void.

### 9.2.2.12 DL or Global Capacity Credit

Void.

### 9.2.2.12A DL_power_averaging_window_size

The *DL_power_averaging_window_size* IE defines the window size when Limited Power Increase is used [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL_power_averaging_window_size | | | INTEGER (1..60) | Unit: inner loop power adjustments<br>Range: 1..60<br>Step: 1 adjustment |

### 9.2.2.12B DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Adjustment Type | M | | 9.2.2.27 | |
| DL Reference Power | C-Common | | DL Power 9.2.1.21 | Power on DPCH or on F-DPCH |
| **DL Reference Power Information** | C-Individual | *1..<maxnoofRLs>* | | |
| >RL ID | M | | 9.2.1.53 | |
| >DL Reference Power | M | | DL Power 9.2.1.21 | Power on DPCH or on F-DPCH |
| Max Adjustment Step | C-CommonOrIndividual | | 9.2.2.20 | |
| Adjustment Period | C-CommonOrIndividual | | 9.2.2.B | |
| Adjustment Ratio | C-CommonOrIndividual | | 9.2.2.C | |

| Condition | Explanation |
|---|---|
| Common | The IE shall be present if the *Power Adjustment Type* IE is set to "Common". |
| Individual | The IE shall be present if the *Power Adjustment Type* IE is set to "Individual". |
| CommonOrIndividual | The IE shall be present if the *Power Adjustment Type* IE is set to "Common" or 'Individual". |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of Radio Links for a UE |

### 9.2.2.12C DL Power Balancing Activation Indicator

The *DL Power Balancing Activation Indicator* IE indicates that the power balancing is activated in the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Power Balancing Activation Indicator | | | ENUMERATED (DL Power Balancing Activated) | |

### 9.2.2.12D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Power Balancing Updated Indicator | | | ENUMERATED (DL Power Balancing Activated) | |

### 9.2.2.13 DL Scrambling Code

DL scrambling code to be used by the RL. One cell may have multiple DL scrambling codes available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Scrambling Code | | | INTEGER (0..15) | "0" = Primary scrambling code of the cell<br>"1".."15" = Secondary scrambling code |

### 9.2.2.13A DL TPC Pattern 01 Count

The *DL TPC Pattern 01 Count* IE contains the value of the parameter n, which is used for determining the DL TPC pattern on Radio Links marked with "first RLS" by the *First RLS indicator* IE before UL synchronisation is achieved.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL TPC Pattern 01 Count | | | INTEGER(0..30,…) | |

### 9.2.2.13B DSCH FDD Information

Void.

### 9.2.2.13C DPC Mode

The *DPC Mode* IE indicates the DPC mode to be applied [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DPC Mode | | | ENUMERATED (<br>Mode0,<br>Mode1,<br>…) | "Mode0": The Node B shall estimate the UE transmitted TPC command and update the DL power in every slot<br><br>"Mode1": The Node B shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots |

### 9.2.2.13D DSCH FDD Common Information

Void.

## 9.2.2.13Da E-DCH FDD Information

The E-DCH *FDD Information* IE provides information for an E-DCH to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH MAC-d Flows Information | M | | 9.2.2.13M | |
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.13Dn | If this IE is not included, scheduled transmission in all HARQ processes is allowed. |
| E-DCH Maximum Bitrate | O | | 9.2.2.13T | |
| E-DCH Processing Overload Level | O | | 9.2.2.13U | |
| E-DCH Reference Power Offset | O | | 9.2.2.13Y | |

## 9.2.2.13DA E-DCH FDD Update Information

The *E-DCH FDD Update Information* IE provides information for E-DCH to be updated. At least one IE shall be present.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Update Information** | | *0..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.2.13O | |
| >HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.13Dn | |
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.13Dn | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of MAC-d flows. |

## 9.2.2.13Db E-DCH FDD Information Response

The *E-DCH FDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information Response** | | *0..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.2.13O | |
| >Binding ID | O | | 9.2.1.4 | |
| >Transport Layer Address | O | | 9.2.1.63 | |
| >HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.13Dn | |
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.13Dn | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of MAC-d flows. |

## 9.2.2.13Dc E-DCH FDD DL Control Channel Information

The *E-DCH FDD DL Control Channel Information* IE provides information for E-DCH specific DL Control Channels to be provided to UE via RRC signalling.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-AGCH And E-RGCH/E-HICH FDD Scrambling Code | O | | DL Scrambling Code 9.2.2.13 | Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted. |
| E-AGCH Channelisation Code | O | | FDD DL Channelisation Code Number 9.2.2.14 | |
| Primary E-RNTI | O | | E-RNTI 9.2.2.13P | |
| Secondary E-RNTI | O | | E-RNTI 9.2.2.13P | |
| E-RGCH/E-HICH Channelisation Code | O | | FDD DL Channelisation Code Number 9.2.2.14 | |
| E-RGCH Signature Sequence | O | | INTEGER (0..maxnoofSigSeqE-RGHICH - 1) | |
| E-HICH Signature Sequence | O | | INTEGER (0..maxnoofSigSeqE-RGHICH - 1) | |
| Serving Grant Value | O | | INTEGER (0..37,38) | (0..37) indicates E-DCH serving grant index as defined in [32]; index 38 means zero grant |
| Primary/Secondary Grant Selector | O | | ENUMERATED (Primary, Secondary) | Indicates whether the Serving Grant Value is granted with a primary E-RNTI or a secondary E-RNTI |
| E-RGCH Release Indicator | O | | 9.2.2.13Ic | |

| Range bound | Explanation |
|---|---|
| *maxnoofSigSeqE-RGHICH* | Maximum number of Signature Sequences for E-RGCH/E-HICH. |

### 9.2.2.13De E-DCH RL Indication

Indicates whether a RL is an E-DCH RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH RL Indication | | | ENUMERATED(E-DCH, non E-DCH) | |

### 9.2.2.13Df E-DCH FDD Information to Modify

The *E-DCH FDD Information to Modify* IE is used for the modification of an E-DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information** | | *0..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.2.13O | |
| >Allocation/Retention Priority | O | | 9.2.1.1A | |
| >Transport Bearer Request Indicator | M | | 9.2.1.62A | |
| >TNL QoS | O | | 9.2.1.58A | |
| >Maximum Number Of Retransmissions For E-DCH | O | | 9.2.2.20D | |
| >E-DCH HARQ Power Offset FDD | O | | 9.2.2.13Dk | |
| >E-DCH MAC-d Flow Multiplexing List | O | | 9.2.2.13Dl | |
| >CHOICE *E-DCH Grant Type* | O | | | |
| *>>E-DCH Non-Scheduled Transmission Grant* | | | | |
| >>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission | M | | 9.2.2.13Dm | |
| >>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.13Dn | |
| *>>E-DCH Scheduled Transmission Grant* | | | NULL | |
| >Bundling Mode Indicator | O | | 9.2.2.1Bb | |
| >E-DCH Logical Channel To Add | O | | E-DCH Logical Channel Information 9.2.2.13K | |
| >E-DCH Logical Channel To Modify | O | | 9.2.2.13L | |
| >E-DCH Logical Channel To Delete | | *0..< maxnooflogicalchannels>* | | |
| >>Logical Channel ID | M | | 9.2.2.18c | |
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.13Dn | |
| E-DCH Maximum Bitrate | O | | 9.2.2.13T | |
| E-DCH Processing Overload Level | O | | 9.2.2.13U | |
| E-DCH Reference Power Offset | O | | 9.2.2.13Y | |
| MAC-e Reset Indicator | O | | 9.2.2.20F | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows. |

## 9.2.2.13Dh E-DCH Transport Format Combination Set Information (E-TFCS Information)

Whereas the related Transport Block sizes are standardised in [32] this IE gives details on the referenced Transport Block Size Table, the E-DCH Minimum Set E-TFCI and the Reference E-TFCIs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-TFCI Table Index | M | | INTEGER (0..1,...) | Indicates which standardised E-TFCS Transport Block Size Table shall be used. The related tables are specified in [32]. |
| E-DCH Minimum Set E-TFCI | O | | INTEGER (0..127) | For the concept of "E-DCH Minimum Set of TFCs" see [32] and [18]. |
| **Reference E-TFCI Information** | | *1..<maxnoofRefETFCIs>* | | |
| >Reference E-TFCI | M | | INTEGER (0..127) | |
| >Reference E-TFCI Power Offset | M | | 9.2.2.13Dp | |

| Range Bound | Explanation |
|---|---|
| *maxnoofRefETFCIs* | Maximum number of signalled reference E-TFCIs |

## 9.2.2.13Di E-TTI

The E-TTI parameter indicates the Transmission Time Interval for E-DPCH operation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-TTI | | | ENUMERATED (2ms, 10ms) | |

## 9.2.2.13Dj E-DPCCH Power Offset

The E-DPCCH Power Offset is used to calculate the E-DPCCH gain factor $\beta_{ec}$ as defined in [10], whereas $\beta_{ec}$ is related to the power difference between DPCCH and E-DPCCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DPCCH Power Offset | | | INTEGER (0..8) | According to mapping in ref. [9] subclause 4.2.1.3. |

## 9.2.2.13Dk E-DCH HARQ Power Offset FDD

The E-DCH HARQ Power Offset FDD is used to calculate the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH HARQ Power Offset FDD | | | INTEGER (0..6) | According to mapping in ref. [9] subclause 4.2.1.3. |

## 9.2.2.13Dl E-DCH MAC-d Flow Multiplexing List

The E-DCH MAC-d Flow Multiplexing List indicates which E-DCH MAC-d flows are allowed to be multiplexed within a MAC-e PDU with the MAC-d flow it is associated to. If the E-DCH MAC-d Flow Multiplexing List is signalled for an E-DCH MAC-d flow it indicates that E-DCH MAC-d PDUs of this E-DCH MAC-d flow are the first E-DCH MAC-d PDU in the MAC-e PDU. If an E-DCH MAC-d Flow Multiplexing List was already received within a previous Radio Link related procedure and no E-DCH MAC-d Flow Multiplexing List is signalled for an E-DCH MAC-d flow, the Node B shall continue to use the previously received one. If no E-DCH MAC-d Flow Multiplexing List was

ever received for an E-DCH MAC-d flow no restrictions shall be assumed for the related E-DCH MAC-d flow for multiplexing E-DCH MAC-d flows.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH MAC-d Flow Multiplexing List | | | BIT STRING (8) | The first Bit corresponds to E-DCH MAC-d flow 0,<br>the second bit corresponds to E-DCH MAC-d flow 1,<br>etc. |

### 9.2.2.13Dm Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission indicates the number of bits allowed to be included in a MAC-e PDU per E-DCH MAC-d flow configured for non-scheduled transmissions.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission | | | INTEGER (1..19982) | |

### 9.2.2.13Dn HARQ Process Allocation For 2ms TTI

The HARQ Process Allocation for 2ms TTI indicates those HARQ processes that are allowed. MAC-d PDU"s for a MAC-d flow are only allowed to be transmitted in those processes for which the bit is set to "1".

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HARQ Process Allocation For 2ms TTI | | | BIT STRING (8) | The first Bit corresponds to HARQ process ID = 0,<br>the second bit corresponds to HARQ process ID = 1,<br>etc.<br>The HARQ process ID for 2ms TTI is defined in [32], chapter 11.8.1.3. |

### 9.2.2.13Dp Reference E-TFCI Power Offset

The Reference E-TFCI Power Offset is used to calculate the reference E-TFC gain factor $\beta_{ed,ref}$ as defined in [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Reference E-TFCI Power Offset | | | INTEGER (0..29) | According to mapping in ref. [9] subclause 4.2.1.3 |

### 9.2.2.13E Enhanced DSCH PC

Void.

### 9.2.2.13F Enhanced DSCH PC Counter

Void.

### 9.2.2.13G Enhanced DSCH PC Indicator

Void.

### 9.2.2.13H Enhanced DSCH PC Wnd

Void.

### 9.2.2.13I Enhanced DSCH Power Offset

Void.

### 9.2.2.13Ia E- RGCH/E-HICH Code Information

This parameter defines the codes which will be assigned for E- RGCH and E-HICH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *replaceremove* | M | | | |
| *>replace* | | | | |
| **>>E-RGCH/E-HICH Code** | | *1..<MaxnoofERGCHEHICHs>* | | |
| >>>Code Number | M | | FDD DL Channelisation Code Number 9.2.2.14 | |
| *>remove* | | | NULL | |

| Range Bound | Explanation |
|---|---|
| MaxnoofERGCHEHICHs | Maximum number of E-RGCH/E-HICH channelisation codes for one cell. |

### 9.2.2.13Ib E- AGCH Code Information

This parameter defines the codes which will be assigned for E- AGCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *replaceremove* | M | | | |
| *>replace* | | | | |
| **>>E-AGCH Code** | | *1..<MaxnoofEAGCHs>* | | |
| >>>Code Number | M | | FDD DL Channelisation Code Number 9.2.2.14 | |
| *>remove* | | | NULL | |

| Range Bound | Explanation |
|---|---|
| MaxnoofEAGCHs | Maximum number of E-AGCH chanellisation codes for one cell. |

### 9.2.2.13Ic E-RGCH Release Indicator

Indicates the E-RGCH is released.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH Release Indicator | | | ENUMERATED (E-RGCH released) | |

### 9.2.2.13Id E-AGCH Power Offset

The *E-AGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-AGCH Power Offset | | | INTEGER (0…255,…) | Unit: dB<br>Range: -32 .. +31.75 dB<br>Step: 0.25 dB |

### 9.2.2.13Ie E-RGCH Power Offset

The *E-RGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH Power Offset | | | INTEGER (0…255,…) | Unit: dB<br>Range: -32 .. +31.75 dB<br>Step: 0.25 dB |

### 9.2.2.13If E-HICH Power Offset

The *E-HICH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-HICH Power Offset | | | INTEGER (0…255,…) | Unit: dB<br>Range: -32 .. +31.75 dB<br>Step: 0.25 dB |

### 9.2.2.13Ig E-RGCH 2-Index-Step Threshold

The E-RGCH 2-index-step-threshold IE is used to determine the Serving Grant.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH 2-Index-Step Threshold | | | INTEGER (0..37) | Refers to an index in the "SG-Table" (see [32]). |

### 9.2.2.13Ih E-RGCH 3-Index-Step Threshold

The E-RGCH 3-index-step-threshold IE is used to determine the Serving Grant.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH 3-Index-Step | | | INTEGER | Refers to an index in the "SG- |

| | | | | |
|---|---|---|---|---|
| Threshold | | | (0..37) | Table" (see [32]). |

### 9.2.2.13J E-DCH Capability

This parameter defines the E-DCH capability for a Local Cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Capability | | | ENUMERATED (E-DCH Capable, E-DCH non Capable) | |

### 9.2.2.13Ja E-DCH Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the RL/RLS situation and the number of uplink E-DPDCHs and their spreading factors. The reference spreading factor and number of E-DPDCH is signalled using the *Maximum Set of E-DPDCHs* IE.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration
- Radio Link Deletion

For the Radio Link Setup and Radio Link Addition procedures, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall credited to the Capacity Credit for the Radio Link Deletion procedure. For the Radio Link Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited when this difference is negative).

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs and the UL costs shall be applied to the DL or Global Capacity Credit.

For a Radio Link creating a Radio Link Set (first RL of a RLS), the cost for the RL (cost 2) and RLS (cost 1) shall be taken into account. When adding a Radio Link to a Radio Link Set, only the RL cost (cost 2) shall be taken into account.
In the case where multiple Radio Links are established in one procedure, for every created Radio Link Set, the first Radio Link is always the Radio Link with the lowest repetition number.

The costs given in the consumption law are the costs per channelization code/no of E-DPDCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **SF Allocation Law** | | *1..<maxnoofCombEDPDCH>* | | For each SF, cost of its allocation, in decending order: the first instance corresponds to multicode configuration 2*SF2+2*SF4, the second to 2*SF2, the third to 2*SF4, the fourth to singlecode configuration SF = 4, the fifth to SF = 8, the sixth to SF16, the seventh to SF32 and the eight to SF64 and so on. |
| >UL Cost 1 | M | | INTEGER (0..65535) | This is the cost of a RLS |
| >UL Cost 2 | M | | INTEGER (0..65535) | This is the cost of a RL |
| DL Cost 1 | O | | INTEGER (0..65535) | This is the cost of a RLS. If not present, zero cost shall be applied. . |
| DL Cost 2 | O | | INTEGER (0..65535) | This is the cost of a RL. If not present, zero cost shall be applied. |

| Range Bound | Explanation |
|---|---|
| *maxnoofCombEDPDCH* | Maximum number of Configurations in the *Maximum Set of E-DPDCH* IE |

## 9.2.2.13K E-DCH Logical Channel Information

The *E-DCH Logical Channel Information* IE is used for the establishment of E-DCH Logical Channels.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH Logical Channel Information** | | *1..<maxnooflogicalchannels>* | | |
| >Logical Channel ID | M | | 9.2.2.18c | |
| >Scheduling Priority Indicator | M | | 9.2.1.53H | |
| >Scheduling Information | M | | 9.2.2.40A | |
| >MAC-es Guaranteed Bit Rate | O | | 9.2.2.20E | |
| >E-DCH DDI Value | M | | 9.2.2.13Q | If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value.<br>Value "0x3F" is reserved |
| **>MAC-d PDU Size List** | | *1..< maxnoofMACdPDUSize* | | |
| >>MAC-d PDU Size | M | | 9.2.1.38A | |

| Range Bound | Explanation |
|---|---|
| *maxnooflogicalchannels* | Maximum number of logical channels |
| *maxnoofMACdPDUSize* | Maximum number of MAC-d PDU size per Logical Channels |

## 9.2.2.13L E-DCH Logical Channel To Modify

The *E-DCH Logical Channel To Modify* IE is used for the reconfiguration of E-DCH Logical Channels.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH Logical Channel Information** | | *1..<maxnooflogicalchannels>* | | |
| >Logical Channel ID | M | | 9.2.2.18c | |
| >Scheduling Priority Indicator | O | | 9.2.1.53H | |
| >Scheduling Information | O | | 9.2.2.40A | |
| >MAC-es Guaranteed Bit Rate | O | | 9.2.2.20E | |
| >E-DCH DDI Value | O | | 9.2.2.13Q | If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value.<br>Value "0x3F" is reserved |
| **>MAC-d PDU Size List** | | *0..< maxnoofMACdPDUSize* | | |
| >>MAC-d PDU Size | M | | 9.2.1.38A | |

| Range Bound | Explanation |
|---|---|
| *maxnooflogicalchannels* | Maximum number of logical channels |
| *maxnoofMACdPDUSize* | Maximum number of MAC-d PDU size per Logical Channels |

## 9.2.2.13M E-DCH MAC-d Flows Information

The *E-DCH MAC-d Flows Information* IE is used for the establishment of E-DCH MAC-d flows.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information** | | *1..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.2.13O | |
| >Allocation/Retention Priority | M | | 9.2.1.1A | |
| >TNL QoS | O | | 9.2.1.58A | |
| >Payload CRC Presence Indicator | M | | 9.2.1.49 | |
| >Maximum Number Of Retransmissions For E-DCH | M | | 9.2.2.20D | |
| >E-DCH HARQ Power Offset FDD | M | | 9.2.2.13Dk | |
| >E-DCH MAC-d Flow Multiplexing List | O | | 9.2.2.13Dl | |
| >CHOICE *E-DCH Grant Type* | M | | | |
| >>*E-DCH Non-Scheduled Transmission Grant* | | | | |
| >>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission | M | | 9.2.2.13Dm | |
| >>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.13Dn | If this IE is not included, transmission in all HARQ processes is allowed. |
| >>*E-DCH Scheduled Transmission Grant* | | | NULL | |
| >Bundling Mode Indicator | O | | 9.2.2.1Bb | |
| >E-DCH Logical Channel Information | M | | 9.2.2.13K | |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

## 9.2.2.13N E-DCH MAC-d Flows To Delete

The *E-DCH MAC-d Flows To Delete* IE is used for the removal of E-DCH MAC-d flows.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flows To Delete** | | *1..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.2.13O | |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

## 9.2.2.13O E-DCH MAC-d Flow ID

The E-DCH MAC-d Flow ID is the unique identifier for one MAC-d flow on E-DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH MAC-d Flow ID | | | INTEGER (0..maxnoofEDCHMACdFlows - 1) | |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

### 9.2.2.13P E-RNTI

The E-RNTI is needed for the UE (or UE group) specific CRC in E-AGCH, see ref. [38].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RNTI | | | INTEGER (0..65535) | |

### 9.2.2.13Q E-DCH DDI Value

The E-DCH DDI Value is the Data Description Indicator value identifying a unique combination of E-DCH MAC-d Flow ID and MAC-d PDU Size.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH DDI Value | | | INTEGER (0..62) | |

### 9.2.2.13R E-DCH Provided Bit Rate Value

The *E-DCH Provided Bit Rate Value* IE indicates the E-DCH Provided Bit Rate as defined in [32].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Provided Bit Rate Value | | | INTEGER (0..2^24-1, …) | Expressed in bit/s. |

### 9.2.2.13S E-DCH Provided Bit Rate Value Information

The *E-DCH Provided Bit Rate Value Information* IE reports the *E-DCH Provided Bit Rate Value* IE for each priority class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH Provided Bit Rate Value Information** | | *1..<maxNoofPriorityClasses>* | | |
| >Scheduling Priority Indicator | M | | 9.2.1.53H | |
| >E-DCH Provided Bit Rate Value | M | | 9.2.2.13R | |

| Range Bound | Explanation |
|---|---|
| *maxNoofPriorityClasses* | Maximum number of E-DCH Scheduling Priorities |

### 9.2.2.13T E-DCH Maximum Bitrate

The E-DCH Maximum Bitrate parameter indicates the Maximum Bitrate for an E-DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Maximum Bitrate | | | INTEGER (0..5742,…) | Bitrate on transport block level. Unit is kbits per second. |

### 9.2.2.13U E-DCH Processing Overload Level

The *E-DCH Processing Overload Level* IE defines the threshold that determines when the Node B shall indicate processing issue problems to the RNC.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| E-DCH Processing Overload Level | | | INTEGER (0..10,…) | Number of consecutive TTIs. The value "0" is a special value that means infinity, i.e. when this value is used, the Node B shall never indicate processing issue to the RNC. |

### 9.2.2.13V E-DCH TTI Capability

This parameter defines the E-DCH TTI Capability for a Local Cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH TTI2ms Capability | | | BOOLEAN | True = TTI 10ms and 2ms supported for E-DCH<br>False = only TTI 10ms supported for E-DCH |

### 9.2.2.13W E-DCH SF Capability

This parameter defines the E-DCH Capability for a Local Cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH SF Capability | | | ENUMERATED (sf64, sf32, sf16, sf8, sf4, 2sf4, 2sf2, 2sf2and2sf4,…) | Min SF supported by the cell in E-DCH |

### 9.2.2.13X E-DCH HARQ Combining Capability

This parameter defines the E-DCH HARQ Combining capability for a Local Cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH HARQ Combining Capability | | | ENUMERATED (IR Combining Capable, Chase Combining Capable, IR and Chase Combining Capable) | |

### 9.2.2.13Y E-DCH Reference Power Offset

The E-DCH Reference Power Offset is used to estimate the E-DPDCH power from E-TFCI without decoding MAC-e PDUs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Reference Power Offset | | | INTEGER (0..6) | According to mapping in ref. [9] subclause 4.2.1.3. |

### 9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FDD DL ChannelisationCode Number | | | INTEGER (0..511) | According to the mapping in [9].<br>The maximum value is equal to the DL spreading factor –1. |

### 9.2.2.14A FDD DL Code Information

The *FDD DL Code Information* IE provides DL Code information for the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **FDD DL Code Information** | | *1..<maxnoofCodes>* | | |
| >DL Scrambling Code | M | | 9.2.2.13 | |
| >FDD DL Channelisation Code Number | M | | 9.2.2.14 | |
| >Transmission Gap Pattern Sequence Code Information | O | | 9.2.2.53B | |

| Range Bound | Explanation |
|---|---|
| *maxnoofCodes* | Maximum number of DL code information |

### 9.2.2.14B FDD S-CCPCH Frame Offset

The *FDD S-CCPCH Frame Offset* IE represents a frame offset between the concerned S-CCPCH"s CFN (Connection Frame Number) relatively to the P-CCPCH"s SFN (System Frame Number) of the respective cell. The *FDD S-CCPCH Frame Offset* IE shall be the constant difference between the S-CCPCH"s CFN and the least significant 8 bits of the SFN (System Frame Number) on Uu.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FDD S-CCPCH Frame Offset | | | ENUMERATED (1, 2, 4,…) | Offset in frames (corresponding to 10msec, 20msec or 40msec offset in time) |

### 9.2.2.15 FDD SCCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 chips.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FDD SCCPCH Offset | | | INTEGER (0..149) | Unit: chip<br>Range: 0..38144 chips<br>Step: 256 chips<br>See ref. [7] |

### 9.2.2.16 FDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FDD TPC Downlink Step Size | | | ENUMERATED (0.5, 1, 1.5, 2,…) | Unit: dB |

### 9.2.2.16a F-DPCH Capability

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| F-DPCH Capability | | | ENUMERATED (F-DPCH Capable, F-DPCH Non-Capable) | |

### 9.2.2.16A First RLS Indicator

The *First RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| First RLS Indicator | | | ENUMERATED ( First RLS, Not First RLS, …) | |

### 9.2.2.17 Gap Period

Void.

### 9.2.2.18 Gap Position Mode

Void.

### 9.2.2.18a HARQ Preamble Mode

The *HARQ Preamble Mode* IE is used as described as in ref [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HARQ Preamble Mode | | | ENUMERATED ( mode0, mode1) | "mode0" means HARQ Preamble Mode =0 "mode1" means HARQ Preamble Mode =1 |

### 9.2.2.18b HARQ Preamble Mode Activation Indicator

The HARQ Preamble Activation Indicator indicates if the configured HARQ Preamble Mode has been activated in the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HARQ Preamble Mode Activation Indicator | | | ENUMERATED(HARQ Preamble Mode Activated). | |

### 9.2.2.18ba HARQ Info for E-DCH

The E-DCH HARQ Info is used to indicate the use of redundancy version (RV) for the EDCH HARQ transmissions.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| HARQ Info for E-DCH | | | ENUMERATED (rv0, rvtable) | "rv0" indicates that the UE will only use E_DCH RV index 0. "rvtable" indicates that the UE will use an RSN based RV index as specified in [8] |

### 9.2.2.18c Logical channel ID

The *Logical Channel ID* IE is used to identify a E-DCH logical channel in Sheduling Information that is sent over Uu.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Logical Channel ID | | INTEGER (1..15) | | |

### 9.2.2.18A Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, the Node B shall use the limited power increase algorithm as specified in [10], subclause 5.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Limited Power Increase | | | ENUMERATED ( Used, Not Used ) | |

### 9.2.2.18B Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links associated with the context identified by the *Node B Communication Context Id* IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Inner Loop DL PC Status | | | ENUMERATED ( Active, Inactive) | |

## 9.2.2.18C IPDL FDD Parameters

The *IPDL FDD Parameters* IE provides information about IPDL to be applied for FDD when activated.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IP SpacingFDD | M | | ENUMERATED (5, 7, 10, 15, 20, 30, 40, 50,…) | See [10] |
| IP Length | M | | ENUMERATED (5, 10) | See [10] |
| Seed | M | | INTEGER (0..63) | See [10] |
| Burst Mode Parameters | O | | 9.2.1.5A | |
| IP Offset | M | | INTEGER (0..9) | See [10] |

## 9.2.2.18Ca HS-DSCH configured indicator

The *HS-DSCH Configured Indicator* IE indicates the configuration of HS-DSCH for the UE. The *HS-DSCH Configured Indicator* IE shall be used for the configuration of the E-DPDCH IQ branch mapping [9].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| HS-DSCH Configured Indicator | | | ENUMERATED (HS-DSCH configured, HS-DSCH not configured) | Indicator of the HS-DSCH forconfiguration of the E-DPDCHs IQ branch mapping [9]. |

## 9.2.2.18D HS-DSCH FDD Information

The *HS-DSCH FDD Information* IE is used for initial addition of HS-DSCH information to a Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-DSCH MAC-d Flows Information | M | | 9.2.1.31IA | | – | |
| **UE Capabilities Information** | | | | | – | |
| >HS-DSCH Physical Layer Category | M | | 9.2.1.31Ia | | – | |
| MAC-hs Reordering Buffer Size for RLC-UM | M | | 9.2.1.38Ab | | – | |
| CQI Feedback Cycle k | M | | 9.2.2.21B | | – | |
| CQI Repetition Factor | C-CQICyclek | | 9.2.2.4Cb | | – | |
| ACK-NACK Repetition Factor | M | | 9.2.2.a | | – | |
| CQI Power Offset | M | | 9.2.2.4Ca | | – | |
| ACK Power Offset | M | | 9.2.2.b | | – | |
| NACK Power Offset | M | | 9.2.2.23a | | – | |
| HS-SCCH Power Offset | O | | 9.2.2.18I | | – | |
| Measurement Power Offset | O | | 9.2.2.21C | | – | |
| HARQ Preamble Mode | O | | 9.2.2.18a | | YES | ignore |

| Condition | Explanation |
|---|---|
| CQICyclek | The IE shall be present if the *CQI Feedback Cycle k* IE is set to a value greater than 0. |

## 9.2.2.18E HS-DSCH FDD Information Response

The HS-DSCH Information Response provides information for HS-DSCH that have been established or modified. It also provides additional HS-DSCH information determined within the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-DSCH MAC-d Flow Specific Information Response** | | *0..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.31I | | – | |
| >Binding ID | O | | 9.2.1.4 | | – | |
| >Transport Layer Address | O | | 9.2.1.63 | | – | |
| >HS-DSCH Initial Capacity Allocation | O | | 9.2.1.31Ha | | – | |
| **HS-SCCH Specific Information Response** | | *0..<maxnoofHSSCCHcodes>* | | | – | |
| >Code Number | M | | INTEGER (0..127) | | – | |
| CHOICE *HARQ Memory Partitioning* | O | | | | – | |
| *>Implicit* | | | | | – | |
| >>Number of Processes | M | | INTEGER (1..8,...) | For HARQ process IDs going from 0 to "Number of Processes" – 1 the Total number of soft channel bits [33] is partitioned equally between all HARQ processes according to the rules in [18]. | – | |
| *>Explicit* | | | | | – | |
| **>>HARQ Memory Partitioning Infomation** | | *1..<maxnoofHARQprocesses>* | | The first instance of the parameter corresponds to HARQ process with identifier 0, the second instance to HARQ process with identifier 1, and so on. | – | |
| >>>Process Memory Size | M | | 9.2.1.49D | See [18] | – | |
| HARQ Preamble Mode Activation Indicator | O | | 9.2.2.18b | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |
| *maxnoofHSSCCHcodes* | Maximum number of HS-SCCH codes |
| *MaxnoofHARQprocesses* | Maximum number of HARQ processes for one UE |

## 9.2.2.18Ea HS-DSCH FDD Update Information

The *HS-DSCH FDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be present.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-SCCH Code Change Indicator | O | | 9.2.1.31K | |
| CQI Feedback Cycle k | O | | 9.2.2.21B | |
| CQI Repetition Factor | O | | 9.2.2.4Cb | |
| ACK-NACK Repetition Factor | O | | 9.2.2.a | |
| CQI Power Offset | O | | 9.2.2.4Ca | |
| ACK Power Offset | O | | 9.2.2.b | |
| NACK Power Offset | O | | 9.2.2.23a | |

## 9.2.2.18Eb HS-DSCH Serving Cell Change Information

The *HS-DSCH Serving Cell Change Information* IE contains information which is used in HS-DSCH Serving Cell change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-PDSCH RL ID | M | | RL ID 9.2.1.53 | |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.18D | |
| HS-DSCH-RNTI | M | | 9.2.1.31J | |

## 9.2.2.18Ec HS-DSCH Serving Cell Change Information Response

The *HS-DSCH Serving Cell Change Information Response* IE contains information which is used in HS-DSCH Serving Cell change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Serving Cell Change* | | | | |
| >*Successful* | | | | |
| >>HS-DSCH FDD Information Response | M | | 9.2.2.18E | |
| >*Unsuccessful* | | | | |
| >>Cause | M | | 9.2.1.6 | |

## 9.2.2.18Ed E-DCH Serving Cell Change Information Response

The *E-DCH Serving Cell Change Information Response* IE contains information which is used in E-DCH Serving Cell change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Serving Cell Change* | | | | |
| *>Successful* | | | | |
| **>>RL Information Response** | | *0..<maxnoofRLs>* | | |
| **>>>**RL ID | M | | 9.2.1.53 | |
| **>>>**E-DCH FDD DL Control Channel Information | M | | 9.2.2.13Dc | |
| *>Unsuccessful* | | | | |
| >>Cause | M | | 9.2.1.6 | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

## 9.2.2.18F HS-PDSCH FDD Code Information

This parameter defines the codes which will be assigned for HS-PDSCHs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Number Of HS-PDSCH Codes | M | | INTEGER (0..maxHS-PDSCHCodeNrComp-1) | |
| Start Code Number | C-NumCodes | | INTEGER (1..maxHS-PDSCHCodeNrComp-1) | |

| Condition | Explanation |
|---|---|
| NumCodes | The IE shall be present if the *Number Of HS-PDSCH Codes* IE is set to a value greater than 0. |

| Range Bound | Explanation |
|---|---|
| MaxHS-PDSCHCodeNrComp | Maximum number of codes at the defined spreading factor, within the complete code tree |

## 9.2.2.18G HS-SCCH FDD Code Information

This parameter defines the codes which will be assigned for HS-SCCH. The Node B will assign codes for HS-SCCHs among these codes when it sets up a HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *replaceremove* | M | | | |
| *>replace* | | | | |
| **>>HS-SCCH Code** | | *1..<MaxnoofHSSCCHs>* | | |
| >>>Code Number | M | | INTEGER (0..maxHS-SCCHCodeNrComp-1) | |
| *>remove* | | | NULL | |

| Range Bound | Explanation |
|---|---|
| MaxnoofHSSCCHs | Maximum number of HS-SCCHs for one cell. |
| MaxHS-SCCHCodeNrComp | Maximum number of codes at the defined spreading factor, within the complete code tree |

### 9.2.2.18H HS-SCCH ID

Void.

### 9.2.2.18I HS-SCCH Power Offset

The *HS-SCCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when FDPCH is configured.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-SCCH Power Offset | | | INTEGER (0…255) | Unit: dB<br>Range: -32 .. +31.75 dB<br>Step: 0.25 dB |

### 9.2.2.18K Initial DL DPCH Timing Adjustment Allowed

The *Initial DL DPCH Timing Adjustment Allowed* IE indicates that the Node B is allowed to perform a timing adjustment (either a timing advance or a timing delay with respect to the SFN timing) when establishing a radio link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Initial DL DPCH Timing Adjustment Allowed | | | ENUMERATED ( initial DL DPCH Timing Adjustment Allowed) | |

### 9.2.2.19 Max Adjustment Period

Void.

### 9.2.2.20 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustment shall be maximum 1dB. This value does not include the DL inner loop PC adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Max Adjustment Step | | | INTEGER (1..10) | Unit: Slots |

### 9.2.2.20A Max Number Of PCPCHs

Void.

### 9.2.2.20B Max Number Of UL E-DPDCHs

Void.

### 9.2.2.20C Maximum Set of E-DPDCHs

The Maximum Set of E-DPDCHs as defined in [8]. Needed by rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Set of E-DPDCHs | | | ENUMERATED (vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,…) | |

### 9.2.2.20D Maximum Number Of Retransmissions For E-DCH

The *Maximum Number Of Retransmissions For E-DCH* IE specifies the upper boundary for retransmissions for a single MAC-d flow.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number Of Retransmissions For E-DCH | | | INTEGER (0..15) | |

### 9.2.2.20E MAC-es Guaranteed Bit Rate

The *MAC-es Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second to be delivered over the air interface under normal operating conditions (provided there is data to deliver) for which the Node B shall provide sufficient UL resources.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| MAC-es Guaranteed Bit Rate | | | INTEGER (0..2^24-1, …) | Unit: bit/s |

### 9.2.2.20F MAC-e Reset Indicator

Indicates the MAC-e Reset is performed in UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-e Reset Indicator | | | ENUMERATED (MAC-e Reset) | |

### 9.2.2.21 Maximum Number Of UL DPDCHs

Maximum number of uplink DPDCHs to be used during the connection. Needed by the rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Max Number Of UL DPDCHs | | | INTEGER (1..6) | |

### 9.2.2.21a Maximum Target Received Total Wide Band Power

The Maximum Target Received Total Wide Band Power indicates the maximum target UL interference for a certain cell under CRNC, including received wide band power from all sources.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Target Received Total Wide Band Power | | | INTEGER (0..621) | The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [22]. |

### 9.2.2.21b Target Non-serving E-DCH to Total E-DCH Power Ratio

The Target Non-serving E-DCH to Total E-DCH Power Ratio indicates the target ratio of the received E-DCH power from non-serving UEs to the received total E-DCH power.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Target Non-serving E-DCH to Total E-DCH Power Ratio | | | INTEGER (0..100) | Unit: %<br>Range: 0..100 %<br>Step: 1 % |

### 9.2.2.21A Maximum PDSCH Power

Void.

### 9.2.2.21B CQI Feedback Cycle k

The *CQI Feedback Cycle k* IE provides the duration of the CQI feedback cycle.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CQI Feedback Cycle k | | | ENUMERATED (0, 2, 4, 8, 10, 20, 40, 80, 160,…) | Unit ms |

### 9.2.2.21C Measurement Power Offset

The *Measurement Power Offset* IE is used as described in ref [10] subclause 6A.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| *Measurement Power Offset* | | | INTEGER (-12..26) | Unit: dB<br>Range: -6..13dB<br>Step: 0.5dB |

### 9.2.2.21D MICH Mode

The number of Notification Indicators (NIs) transmitted in a MICH frame.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MICH Mode | | | ENUMERATED (18, 36, 72, 144,…) | Number of NIs per frame |

### 9.2.2.22 Minimum UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH which is used during the connection. Needed by rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Min UL Channelisation Code Length | | | ENUMERATED (4, 8, 16, 32, 64, 128, 256,…) | |

### 9.2.2.22a Min UL Channelisation Code Length For E-DCH FDD

Void.

### 9.2.2.23 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Multiplexing Position | | | ENUMERATED ( Fixed, Flexible) | |

### 9.2.2.23a NACK Power Offset

The *NACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ NACK information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| NACK Power Offset | | | INTEGER (0..8,…) | According to mapping in ref. [9] subclause 4.2.1. |

### 9.2.2.23A N_EOT

Void.

### 9.2.2.23B NF_max

Void.

### 9.2.2.23C N_Start_Message

Void.

### 9.2.2.23D Number Of Reported Cell Portions

Number of Reported Cell Portions indicates the number of Best Cell Portions values which shall be included in the measurement report.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Number Of Reported Cell Portions | | | INTEGER (1..64,…) | |

### 9.2.2.24 Pattern Duration (PD)

Void.

### 9.2.2.24A PCP Length

Void.

### 9.2.2.25 PDSCH Code Mapping

Void.

### 9.2.2.26 PICH Mode

The number of paging indicators (PIs) in a PICH frame.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PICH Mode | | | ENUMERATED (18, 36, 72, 144,…) | Number of PIs per frame |

### 9.2.2.27 Power Adjustment Type

Defines the characteristic of the power adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Adjustment Type | | | ENUMERATED ( None, Common, Individual) | |

### 9.2.2.28 Power Control Mode

Void.

### 9.2.2.29 Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPDCH in case the Node B Communication Context is configured to use DPCH in the downlink or relative to the Reference F-DPCH TX Power in case the Node B Communication Context is configured to use F-DPCH in the downlink or relative to a Secondary CCPCH data field.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Offset | | | INTEGER (0..24) | Unit: dB<br>Range: 0..6 dB<br>Step: 0.25 dB |

### 9.2.2.29A Power_Raise_Limit

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power_Raise_Limit | | | INTEGER (0..10) | Unit: dB<br>Range: 0..10 dB<br>Step: 1 dB |

### 9.2.2.30 Power Resume Mode

Void.

### 9.2.2.31 Preamble Signature

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Preamble Signatures | | | BIT STRING (16) | Each bit indicates availability for a signature, where the signatures are numbered "signature 0" up to "signature 15". The value 1 of a bit indicates that the corresponding signature is available and the value 0 that it is not available.The order of bits is to be interpreted according to subclause 9.3.4. See also [9]. |

### 9.2.2.32 Preamble Threshold

The IE sets the threshold for preamble detection. The ratio between received preamble power during the preamble period and interference level shall be above this threshold in order to be acknowledged.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Preamble Threshold | | | INTEGER (0..72) | Unit: dB<br>Range: -36 .. 0 dB<br>Step: 0.5 dB |

### 9.2.2.33 Primary CPICH Power

The Primary CPICH power is the power that shall be used for transmitting the P-CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CPICH Power | | | INTEGER (-100..500) | Value = Primary CPICH Power/10<br>Unit: dBm<br>Range: -10.0..+50.0 dBm<br>Step: 0.1 dB |

### 9.2.2.33A Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CPICH Usage For Channel Estimation | | | ENUMERATED ( Primary CPICH may be used, Primary CPICH shall not be used) | |

### 9.2.2.34 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary Scrambling Code | | | INTEGER (0..511) | |

### 9.2.2.35 Propagation Delay

The Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Propagation Delay | | | INTEGER (0..255) | Unit: chip<br>Range: 0..765 chips<br>Step: 3 chips |

### 9.2.2.36 QE-Selector

Void.

### 9.2.2.36A Qth Parameter

Void.

### 9.2.2.37 RACH Slot Format

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RACH Slot Format | | | ENUMERATED (0..3,...) | See ref. [7]. |

### 9.2.2.38 RACH Sub Channel Numbers

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RACH Sub Channel Numbers | | | BIT STRING (12) | Each bit indicates availability for a subchannel, where the subchannels are numbered "subchannel 0" to "subchannel 11". The value 1 of a bit indicates that the corresponding subchannel is available and the value 0 indicates that it is not available.The order of bits is to be interpreted according to subclause 9.3.4. |

### 9.2.2.39 RL Set ID

The RL Set ID uniquely identifies one RL Set within a Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RL Set ID | | | INTEGER (0..31) | |

### 9.2.2.39a RL Specific E-DCH Information

The *RL Specific E-DCH Information* IE provides RL specific E-DCH Information.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **RL Specific E-DCH Information** | | *1..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.2.13O | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. |
| E-AGCH Power Offset | O | | 9.2.2.13Id | |
| E-RGCH Power Offset | O | | 9.2.2.13Ie | |
| E-HICH Power Offset | O | | 9.2.2.13If | |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

### 9.2.2.39A Received Total Wide Band Power

The Received total wide band power indicates the UL interference at a certain cell under CRNC, see ref. [4].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Received Total Wide Band Power | | | INTEGER (0..621) | According to mapping in [22]. |

### 9.2.2.39B Reference Received Total Wide Band Power

The Reference Received Total Wide Band Power indicates the reference UL interference (received noise level) for a certain cell under CRNC. This value may be used for E-DCH scheduling in the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Reference Received Total Wide Band Power | | | INTEGER (0..621) | The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [22]. |

### 9.2.2.40 S-Field Length

Void.

### 9.2.2.40A Scheduling Information

The *Scheduling Information* IE indicates whether the scheduling information is included for the E-DCH logical channel or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Scheduling Information | | | ENUMERATED ( Included, Not Included) | |

### 9.2.2.41 Scrambling Code Change

Void.

### 9.2.2.42 Scrambling Code Number

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Scrambling Code Number | | | INTEGER (0..15) | Identification of scrambling code see ref. [9]. |

### 9.2.2.43 Secondary CCPCH Slot Format

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Secondary CCPCH Slot Format | | | INTEGER (0..17,…) | |

### 9.2.2.43A Secondary CPICH Information Change

The *Secondary CPICH Information Change* IE indicates modification of information of the Secondary CPICH for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Secondary CPICH Information Change* | M | | | |
| *>New Secondary CPICH* | | | | |
| >>Secondary CPICH Information | M | | Common Physical Channel ID 9.2.1.13 | |
| *>Secondary CPICH Shall Not Be Used* | | | NULL | |

### 9.2.2.44 SSDT Cell Identity

Void.

### 9.2.2.44A SSDT Cell Identity For EDSCHPC

Void.

### 9.2.2.45 SSDT Cell ID Length

Void.

### 9.2.2.46 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SSDT Support Indicator | | | ENUMERATED ( Not Used, SSDT Not Supported) | The *SSDT Support Indicator* IE shall never be set to "Not Used". If received it shall be rejected. |

### 9.2.2.47 SSDT Indication

Void.

### 9.2.2.48 STTD Indicator

Indicates if STTD shall be active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| STTD Indicator | | | ENUMERATED ( active, inactive, …) | |

### 9.2.2.48A Synchronisation Indicator

The *Synchronisation Indicator* IE indicates that Timing Maintained Synchronisation shall be used at start of Radio Link, see also [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Synchronisation Indicator | | | ENUMERATED (Timing Maintained Synchronisation, …) | |

### 9.2.2.48B Serving E-DCH RL

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Serving E-DCH RL* | M | | | |
| *>Serving E-DCH RL in this Node B* | | | | |
| >>Serving E-DCH RL ID | M | | RL ID 9.2.1.53 | |
| *>Serving E-DCH RL not in this Node B* | | | NULL | |

### 9.2.2.49 T Cell

Timing delay used for defining start of SCH, CPICH and the DL scrambling code(s) in a cell relative BFN. Resolution 256 chips.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| T Cell | | | ENUMERATED (0, 1,..,9) | Unit: chip<br>Range: 0..2304 chips<br>Step: 256 chips<br>See ref. [17] |

### 9.2.2.49A TFCI2 Bearer Information Response

Void.

### 9.2.2.50 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI. In the event that the split mode is to be used then the IE indicates whether the split is "Hard" or "Logical", and in the event that the split is "Logical" the IE indicates the number of bits in TFCI (field 2).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TFCI Signalling Option | M | | ENUMERATED ( Normal, Not Used) | The value "Not Used" shall not be used by the CRNC. The procedure shall be rejected by the Node B if the value "Not Used" is received. |
| Not Used | O | | NULL | |
| Not Used | O | | NULL | |

### 9.2.2.51 TGD

Void.

### 9.2.2.52 TGL

Void.

### 9.2.2.53 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether transmit diversity shall be active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transmit Diversity Indicator | | | ENUMERATED ( active, inactive) | |

### 9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see ref. [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Transmission Gap Pattern Sequence Information** | | *1..<maxTGPS>* | | |
| >TGPS Identifier | M | | INTEGER (1..maxTGPS) | Transmission Gap Pattern Sequence Identifier: Establish a reference to the compressed mode pattern sequence. Up to <maxTGPS> simultaneous compressed mode pattern sequences can be used. |
| >TGSN | M | | INTEGER (0..14) | Transmission Gap Starting Slot Number: The slot number of the first transmission gap slot within the TGCFN. |
| >TGL1 | M | | INTEGER (1..14) | The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots. |
| >TGL2 | O | | INTEGER (1..14) | The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1. |
| >TGD | M | | INTEGER (0, 15.. 269) | Transmission Gap Distance: indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to "0" ("0" =undefined). |
| >TGPL1 | M | | INTEGER (1..144,…) | The duration of transmission gap pattern 1 in frames. |
| >Not-to-be-used-1 | O | | INTEGER (1..144,…) | This IE shall never be included in the IE group. If received it shall be ignored. |
| >UL/DL Mode | M | | ENUMERATED ( UL only, DL only, UL/DL) | Defines whether only DL, only UL or combined UL/DL compressed mode is used. |
| >Downlink Compressed Mode Method | C-DL | | ENUMERATED ( Not Used, SF/2, Higher Layer Scheduling, …) | Method for generating downlink compressed mode gap.The *Downlink Compressed Mode Method* IE shall never be set to "Not Used". |
| >Uplink Compressed Mode Method | C-UL | | ENUMERATED ( SF/2, Higher Layer Scheduling, …) | Method for generating uplink compressed mode gap. |
| >Downlink Frame Type | M | | ENUMERATED (A, B,…) | Defines if frame structure type "A" or "B" shall be used in downlink compressed mode. |
| >DeltaSIR1 | M | | INTEGER (0..30) | Delta in SIR target value to be set in the Node B during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). Unit: dB Range: 0..3 dB Step: 0.1 dB |

| | | | | |
|---|---|---|---|---|
| >DeltaSIRafter1 | M | | INTEGER (0..30) | Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the first transmission gap in the transmission gap pattern.<br>Unit: dB<br>Range: 0..3 dB<br>Step: 0.1 dB |
| >DeltaSIR2 | O | | INTEGER (0..30) | Delta in SIR target value to be set in the Node B during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase).<br>When omitted, DeltaSIR2 = DeltaSIR1.<br>Unit: dB<br>Range: 0..3 dB<br>Step: 0.1 dB |
| >DeltaSIRafter2 | O | | INTEGER (0..30) | Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the second transmission gap in the transmission gap pattern.<br>When omitted, DeltaSIRafter2 = DeltaSIRafter1.<br>Unit: dB<br>Range: 0..3 dB<br>Step: 0.1 dB |

| Condition | Explanation |
|---|---|
| UL | The IE shall be present if the *UL/DL mode* IE is set to "UL only" or "UL/DL". |
| DL | The IE shall be present if the *UL/DL mode* IE is set to "DL only" or "UL/DL". |

| Range Bound | Explanation |
|---|---|
| *maxTGPS* | Maximum number of transmission gap pattern sequences |

### 9.2.2.53B Transmission Gap Pattern Sequence Code Information

This IE indicates whether the alternative scrambling code shall used for the Downlink compressed mode method or not in the Transmission Gap Pattern Sequence. For details see [9].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transmission Gap Pattern Sequence Code Information | | | ENUMERATED ( Code Change, No Code Change) | Indicates whether the alternative scrambling code is used for compressed mode method "SF/2". |

### 9.2.2.54 UL/DL compressed mode selection

Void.

### 9.2.2.55 UL delta SIR

Void.

### 9.2.2.56 UL delta SIR after

Void.

### 9.2.2.57 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [7].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL DPCCH Slot Format | | | INTEGER (0..5,…) | |

### 9.2.2.58 UL SIR

Void.

### 9.2.2.59 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL Scrambling Code Number | M | | INTEGER (0..$2^{24}$-1) | |
| UL Scrambling Code Length | M | | ENUMERATED ( Short, Long) | |

### 9.2.2.60 UL Capacity Credit

Void.

### 9.2.2.61 UL DPDCH Indicator For E-DCH Operation

The UL DPDCH Indicator For E-DCH Operation parameter indicates whether some UL DPCH parameters should be ignored or not in the message in which the *UL DPDCH Indicator For E-DCH Operation* IE was included.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL DPDCH Indicator For E-DCH Operation | | | ENUMERATED ( UL-DPDCH present, UL-DPDCH not present) | |

## 9.2.3 TDD specific Parameters

### 9.2.3.1 Block STTD Indicator

Void.

### 9.2.3.2 Burst Type

Void.

### 9.2.3.3 CCTrCH ID

The CCTrCH ID for dedicated and shared channels identifies unambiguously an uplink or downlink CCTrCH inside a Radio Link. For S-CCPCH, it identifies unambiguously a downlink CCTrCH within a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CCTrCH ID | | | INTEGER (0..15) | |

### 9.2.3.4 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Parameter ID | | | INTEGER (0..127,…) | |

### 9.2.3.4A Constant Value

The Constant Value is the power margin used by a UE to set the proper uplink power for a DCH, USCH, or a RACH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Constant Value | | | INTEGER (-10..10,…) | Unit: dB<br>Range: -10 .. +10 dB<br>Step: 1 dB. |

### 9.2.3.4B DL Timeslot ISCP

The DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [5].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Timeslot ISCP | | | INTEGER (0..91) | According to mapping in ref. [5]. |

### 9.2.3.4C DCH TDD Information

The *DCH TDD Information* IE provides information for DCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DCH TDD Information** | | *1..<maxnoofDCHs>* | | | – | |
| >Payload CRC Presence Indicator | M | | 9.2.1.49 | | – | |
| >UL FP Mode | M | | 9.2.1.66 | | – | |
| >ToAWS | M | | 9.2.1.61 | | – | |
| >ToAWE | M | | 9.2.1.60 | | – | |
| **>DCH Specific Info** | | *1..<maxnoofDCHs>* | | | – | |
| >>DCH ID | M | | 9.2.1.20 | | – | |
| >>CCTrCH ID | M | | 9.2.3.3 | UL CCTrCH in which the DCH is mapped | – | |
| >>CCTrCH ID | M | | 9.2.3.3 | DL CCTrCH in which the DCH is mapped | – | |
| >>Transport Format Set | M | | 9.2.1.59 | For UL | – | |
| >>Transport Format Set | M | | 9.2.1.59 | For DL | – | |
| >>Allocation/Retention Priority | M | | 9.2.1.1A | | – | |
| >>Frame Handling Priority | M | | 9.2.1.30 | | – | |
| >>QE-Selector | C-CoorDCH | | 9.2.1.50A | | – | |
| >>Unidirectional DCH Indicator | O | | 9.2.1.68 | | YES | reject |
| >TNL QoS | O | | 9.2.1.58A | | YES | ignore |

| Condition | Explanation |
|---|---|
| CoorDCH | The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the *DCH Specific Info* IE is greater than 1). |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE |

## 9.2.3.4D DCHs TDD To Modify

The *DCHs TDD To Modify* IE provides information for DCHs to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DCHs TDD To Modify** | | *1..<maxnoofDCHs>* | | | – | |
| >UL FP Mode | O | | 9.2.1.66 | | – | |
| >ToAWS | O | | 9.2.1.61 | | – | |
| >ToAWE | O | | 9.2.1.60 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.62A | | – | |
| **>DCH Specific Info** | | *1..<maxnoofDCHs>* | | | – | |
| >>DCH ID | M | | 9.2.1.20 | | – | |
| >>CCTrCH ID | O | | 9.2.3.3 | UL CCTrCH in which the DCH is mapped. | – | |
| >>CCTrCH ID | O | | 9.2.3.3 | DL CCTrCH in which the DCH is mapped | – | |
| >>Transport Format Set | O | | 9.2.1.59 | For the UL. | – | |
| >>Transport Format Set | O | | 9.2.1.59 | For the DL. | – | |
| >>Allocation/Retention Priority | O | | 9.2.1.1A | | – | |
| >>Frame Handling Priority | O | | 9.2.1.30 | | – | |
| >TNL QoS | O | | 9.2.1.58A | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE |

## 9.2.3.4E DL Timeslot Information

The *DL Timeslot Information* IE provides information for DL Time slot to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **DL Timeslot Information** | | *1..<maxnoofDLts>* | | |
| >Time Slot | M | | 9.2.3.23 | |
| >Midamble Shift And Burst Type | M | | 9.2.3.7 | |
| >TFCI Presence | M | | 9.2.1.57 | |
| >DL Code Information | M | | TDD DL Code Information 9.2.3.19B | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDLts* | Maximum number of Downlink time slots per Radio Link |

## 9.2.3.4F DL Time Slot ISCP Info

The *DL Time Slot ISCP Info* IE provides information for DL Interference level for each time slot within the Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **DL Time Slot ISCP Info** | | *1..<maxnoofDLts>* | | |
| >Time Slot | M | | 9.2.3.23 | |
| >DL Timeslot ISCP | M | | 9.2.3.4B | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDLts* | Maximum number of Downlink time slots per Radio Link for 3.84Mcps TDD. |

### 9.2.3.4G Cell Sync Burst Code

The *Cell Sync Burst Code* IE indicates which Code is used for a given Cell Sync Burst.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Sync Burst Code | | | INTEGER (0..7,…) | |

### 9.2.3.4H Cell Sync Burst Code Shift

The *Cell Sync Burst Code Shift* IE indicates the number of code shifts used for a given Cell Sync Burst.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Sync Burst Code Shift | | | INTEGER (0..7) | |

### 9.2.3.4I CSB Measurement ID

The *Cell Sync Burst Measurement ID* IE uniquely identifies any cell synchronisation burst measurement per Node B Control Port.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CSB Measurement ID | | | INTEGER (0..65535) | |

### 9.2.3.4J Cell Sync Burst Repetition Period

The *Cell Sync Burst Repetition Period* IE represents the number of consecutive Radio Frames after which the cell synchronisation burst transmission/measurement is repeated. This means that if the Time Slot *K* is assigned to the cell synchronisation burst transmission/measurements in the Radio Frame *J*, the cell synchronisation burst transmission/measurement is also in all the Radio Frames *J+n*Repetition Period*.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Sync Burst Repetition Period | | | INTEGER (0..4095) | |

### 9.2.3.4K Cell Sync Burst SIR

Indicates the Signal to Interference Ratio of the cell synchronisation burst measurement according definition in [5].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Sync Burst SIR | | | INTEGER (0..31) | According to mapping in [23] |

### 9.2.3.4L Cell Sync Burst Timing

The *Cell Sync Burst Timing* IE defines the time of start (defined by the first detected path in time) of the cell synchronisation burst of a neighbouring cell see [5] for 3.84Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Phase* | | | | According to mapping in [23] |
| >*Initial Phase* | | | | |
| >>Cell Synch Burst Timing Value | M | | INTEGER (0..1048575,…) | |
| >*Steady State Phase* | | | | |
| >>Cell Synch Burst Timing Value | M | | INTEGER (0..255,…) | |

### 9.2.3.4La Cell Sync Burst Timing LCR

The *Cell Sync Burst Timing LCR* IE defines the time of start (defined by the first detected path in time) of the cell synchronisation burst of a neighbouring cell see [5] for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Phase* | | | | According to mapping in [23] |
| >*Initial Phase* | | | | |
| >>Cell Synch Burst Timing Value | M | | INTEGER (0.. 524287,…) | |
| >*Steady State Phase* | | | | |
| >>Cell Synch Burst Timing Value | M | | INTEGER (0..127,…) | |

### 9.2.3.4M Cell Sync Burst Timing Threshold

The *Cell Sync Burst Timing Threshold* IE defines the threshold that shall trigger a CELL SYNCHRONISATION REPORT message.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Sync Burst Timing Threshold | | | INTEGER (0..254) | Unit: chip<br>Range: 0 .. 31.75 chips<br>Step: 0.125 chip |

### 9.2.3.4N CSB Transmission ID

The *Cell Sync Burst Transmisson ID* IE uniquely identifies any cell synchronisation burst transmission per Node B Control Port.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CSB Transmission ID | | | INTEGER (0..65535) | |

### 9.2.3.4O DL Timeslot Information LCR

The *DL Timeslot Information LCR* IE provides information for DL Time slot to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DL Timeslot Information LCR** | | *1..<maxnoofDLtsLCR>* | | | – | |
| >Time Slot LCR | M | | 9.2.3.24A | | – | |
| >Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >TFCI Presence | M | | 9.2.1.57 | | – | |
| >DL Code Information | M | | TDD DL Code Information LCR 9.2.3.19C | | – | |
| >Initial DL Transmission Power | O | | DL Power 9.2.1.21 | Initial power on DPCH | YES | ignore |
| >Maximum DL Power | O | | DL Power 9.2.1.21 | Maximum allowed power on DPCH | YES | ignore |
| >Minimum DL Power | O | | DL Power 9.2.1.21 | Minimum allowed power on DPCH | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofDLtsLCR* | Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD. |

### 9.2.3.4P DL Time Slot ISCP Info LCR

The *DL Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **DL Time Slot ISCP Info LCR** | | *1..<maxnoofDLtsLCR>* | | |
| >Time Slot LCR | M | | 9.2.3.24A | |
| >DL Timeslot ISCP | M | | 9.2.3.4B | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDLtsLCR* | Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD. |

### 9.2.3.5 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DPCH ID | | | INTEGER (0..239) | |

### 9.2.3.5a DSCH ID

The DSCH ID uniquely identifies a DSCH within a Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DSCH ID | | | INTEGER (0..255) | |

### 9.2.3.5b DSCH Information Response

The *DSCH Information Response* IE provides information for DSCHs that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **DSCH Information Response** | | *1..<maxnoofDSCHs>* | | |
| >DSCH ID | M | | 9.2.3.5a | |
| >Binding ID | O | | 9.2.1.4 | |
| >Transport Layer Address | O | | 9.2.1.63 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDSCHs* | Maximum number of DSCHs for one UE |

### 9.2.3.5A DSCH TDD Information

The *DSCH TDD Information* IE provides information for DSCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DSCH TDD Information** | | *1..<maxnoofDSCHs>* | | | – | |
| >DSCH ID | M | | 9.2.3.5a | | – | |
| >CCTrCH ID | M | | 9.2.3.3 | DL CCTrCH in which the DSCH is mapped | – | |
| >Transport Format Set | M | | 9.2.1.59 | For DSCH | – | |
| >Allocation/Retention Priority | M | | 9.2.1.1A | | – | |
| >Frame Handling Priority | M | | 9.2.1.30 | | – | |
| >ToAWS | M | | 9.2.1.61 | | – | |
| >ToAWE | M | | 9.2.1.60 | | – | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *MaxnoofDSCHs* | Maximum number of DSCH for one UE |

### 9.2.3.5B DwPCH Power

DwPCH Power is the power that shall be used for transmitting the DwPCH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the DwPCH, the DwPCH power is the linear sum of the power that is used for transmitting the DwPCH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DwPCH Power | | | INTEGER (-150..+400,…) | Unit: dBm<br>Range: -15 ..+40 dBm<br>Step: 0.1 dB |

### 9.2.3.5C Frame Adjustment Value

The *Frame Adjustment Value* IE represents the frame number correction within the initial synchronisation phase.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Frame Adjustment Value | | | INTEGER (0..4095) | $SFN_{new}=(SFN_{old}$+Frame Adjustment Value) mod 4096 |

### 9.2.3.5D IPDL TDD Parameter

The *IPDL TDD Parameter* IE provides information about IPDL to be applied for 3.84Mcps TDD when activated.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IP SpacingTDD | M | | ENUMERATED (30, 40, 50, 70, 100, ...) | See [21] |
| IP Start | M | | INTEGER (0..4095) | See [21] |
| IP Slot | M | | INTEGER (0..14) | See [21] |
| IP PCCPCH | M | | ENUMERATED ( Switch off 1 frame, Switch off 2 frames) | See [21] |
| Burst Mode parameters | O | | 9.2.1.5A | |

### 9.2.3.5E Max FPACH Power

Max FPACH Power is the maximum power that shall be used for transmitting the FPACH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the FPACH, the Max FPACH Power is maximum of the linear sum of the power that is allowed for transmitting the FPACH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FPACH Power | | | INTEGER (-150..+400,…) | Unit: dBm<br>Range: -15 ..+40 dBm<br>Step: 0.1 dB |

### 9.2.3.5F HS-DSCH TDD Information

The *HS-DSCH TDD Information* IE is used for initial addition of HS-DSCH information to a Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-DSCH MAC-d Flows Information | M | | 9.2.1.31IA | | – | |
| **UE Capabilities Information** | | | | | – | |
| >HS-DSCH Physical Layer Category | M | | 9.2.1.31Ia | | – | |
| MAC-hs Reordering Buffer Size for RLC-UM | M | | 9.2.1.38Ab | | – | |
| TDD ACK NACK Power Offset | M | | 9.2.3.18F | | – | |
| HS-SICH SIR Target | O | | UL SIR 9.2.1.67A | Applicable to 1.28Mcps TDD only | YES | ignore |
| HS-SICH TPC step size | O | | 9.2.3.21a | Applicable to 1.28Mcps TDD only | YES | ignore |

### 9.2.3.5G HS-DSCH TDD Information Response

The HS-DSCH TDD Information Response provides information for HS-DSCH MAC-d flows that have been established or modified. It also provides additional HS-DSCH information determined within the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-DSCH MAC-d Flow Specific Information Response** | | *0..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.31I | | – | |
| >Binding ID | O | | 9.2.1.4 | | – | |
| >Transport Layer Address | O | | 9.2.1.63 | | – | |
| > HS-DSCH Initial Capacity Allocation | O | | 9.2.1.31Ha | | – | |
| **HS-SCCH Specific Information Response** | | *0..<maxNoOfHSSCCHcodes>* | | Not applicable to 1.28 Mcps TDD | GLOBAL | reject |
| >Time Slot | M | | 9.2.3.23 | | – | |
| >Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| >TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| **>HS-SICH Information** | | *1* | | | – | |
| >>HS SICH ID | M | | 9.2.3.5Gb | | – | |
| >>Time Slot | M | | 9.2.3.23 | | – | |
| >>Midamble Shift And Burst Type | M | | 9.2.3.7 | | – | |
| >>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| **HS-SCCH Specific Information Response LCR** | | *0..<maxNoOfHSSCCHcodes>* | | Not applicable to 3.84 Mcps TDD | GLOBAL | reject |
| >Time Slot LCR | M | | 9.2.3.24A | | – | |
| >Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >First TDD Channelisation Code | M | | TDD Channelisation Code 9.2.3.19 | | – | |
| >Second TDD Channelisation Code | M | | TDD Channelisation Code 9.2.3.19 | | – | |
| **>HS-SICH Information LCR** | | *1* | | | – | |
| >>HS SICH ID | M | | 9.2.3.5Gb | | | |
| >>Time Slot LCR | M | | 9.2.3.24A | | – | |
| >>Midamble Shift LCR | M | | 9.2.3.7A | | – | |
| >>TDD Channelisation Code | M | | 9.2.3.19 | | – | |
| CHOICE *HARQ Memory Partitioning* | O | | | | – | |
| *>Implicit* | | | | | – | |
| >>Number of Processes | M | | INTEGER (1..8,...) | For HARQ process IDs going from 0 to "Number of Processes" – 1 the Total number of soft channel bits [33] is partitioned equally between all HARQ processes according to the rules in [18]. | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| *>Explicit* | | | | | – | |
| **>>HARQ Memory Partitioning Infomation** | | *1..<maxnoofHARQprocesses>* | | The first instance of the parameter corresponds to HARQ process with identifier 0, the second instance to HARQ process with identifier 1, and so on. | – | |
| >>>Process Memory Size | M | | 9.2.1.49D | See [18] | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows. |
| *maxnoofHSSCCHcodes* | Maximum number of HS-SCCH codes |
| *maxnoofHARQprocesses* | Maximum number of HARQ processes for one UE |

### 9.2.3.5GA HS-DSCH TDD Update Information

The *HS-DSCH TDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be present.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-SCCH Code Change Indicator | O | | 9.2.1.31K | |
| TDD ACK NACK Power Offset | O | | 9.2.3.18F | |

### 9.2.3.5Ga HS-SCCH ID

The HS-SCCH ID identifies unambiguously a HS-SCCH and its paired HS-SICH within the set of HS-SCCHs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS SCCH ID | | | INTEGER (0..31) | |

### 9.2.3.5Gb HS-SICH ID

The HS-SICH ID identifies unambiguously a HS-SICH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS SICH ID | | | INTEGER (0..31) | |

### 9.2.3.5H IPDL TDD Parameters LCR

The *IPDL TDD Parameters LCR* IE provides information about IPDL to be applied for 1.28Mcps TDD when activated.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IP SpacingTDD | M | | ENUMERATED (30, 40, 50, 70, 100, ...) | See [21] |
| IP Start | M | | INTEGER (0..4095) | See [21] |
| IP_Sub | M | | ENUMERATED ( First, Second, | See [21] |

| | | | | |
|---|---|---|---|---|
| | | | Both) | |
| Burst Mode Parameters | O | | 9.2.1.5A | |

### 9.2.3.6 Max PRACH Midamble Shift

Indicates the maximum number of Midamble shifts to be used in a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Max PRACH Midamble Shift | | | ENUMERATED (4, 8,…) | |

### 9.2.3.7 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation.

The 256 chip midamble supports 3 different time shifts, the 512 chips midamble may support 8 or even 16 time shifts.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Burst Type* | | | | |
| *>Type1* | | | | |
| >>Midamble Configuration Burst Type 1 And 3 | M | | INTEGER (4, 8, 16) | As defined in [19] |
| >>CHOICE *Midamble Allocation Mode* | M | | | |
| *>>>Default Midamble* | | | NULL | |
| *>>>Common Midamble* | | | NULL | |
| *>>>UE Specific Midamble* | | | | |
| >>Midamble Shift Long | M | | INTEGER (0..15) | |
| *>Type2* | | | | |
| >>Midamble Configuration Burst Type 2 | M | | INTEGER (3,6) | As defined in [19] |
| >>CHOICE *Midamble Allocation Mode* | M | | | |
| *>>>Default Midamble* | | | NULL | |
| *>>>Common Midamble* | | | NULL | |
| *>>>UE Specific Midamble* | | | | |
| >>Midamble Shift Short | M | | INTEGER (0..5) | |
| *>Type3* | | | | UL only |
| >>Midamble Configuration Burst Type 1 And 3 | M | | INTEGER (4, 8, 16) | As defined in [19] |
| >>CHOICE *Midamble Allocation Mode* | M | | | |
| *>>>Default Midamble* | | | NULL | |
| *>>>UE Specific Midamble* | | | | |
| >>Midamble Shift Long | M | | INTEGER (0..15) | |

### 9.2.3.7A Midamble Shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Midamble Allocation Mode | M | | ENUMERATED ( Default midamble, Common midamble, UE specific midamble, …) | |
| Midamble Shift Long | C-UE | | INTEGER (0..15) | |
| Midamble Configuration LCR | M | | ENUMERATED (2, 4, 6, 8, 10, 12, 14, 16, ...) | As defined in [19] |

| Condition | Explanation |
|---|---|
| *UE* | The IE shall be present if the *Midamble Allocation Mode* IE is set to "UE-specific midamble". |

### 9.2.3.7Aa Notification Indicator Length

The Notification Indicator Length indicates the number of symbols for Notification Indication transmitted in one timeslot (see ref [19]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Notification Indicator Length | | | ENUMERATED (2, 4, 8,…) | |

### 9.2.3.7B Number Of Cycles Per SFN Period

The *Number Of Cycles Per SFN Period* IE indicates the number of repetitions per SFN period where the same schedule shall apply.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Number Of Cycles Per SFN Period | | | ENUMERATED (1, 2, 4, 8, ..., 16, 32, 64) | |

### 9.2.3.7C Number Of Repetitions Per Cycle Period

The *Number Of Repetitions Per Cycle Period* IE indicates the number of Sync frames per Cycle Length where the [3.84Mcps TDD - cell synchronisation bursts] [1.28Mcps TDD – Sync_DL Codes] shall be transmitted or the cell synchronisation bursts from the neighbouring cells shall be measured.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Number Of Repetitions Per Cycle Period | | | INTEGER (2..10) | |

### 9.2.3.7D Number Of Subcycles Per Cycle Period

The *Number Of Subcycles Per Cycle Period* IE indicates the number of subcycles within a Synchronisation Cycle. Within each subcycle, the same sequence of SYNC_DL Code transmissions and receptions is performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Number Of Subcycles Per Cycle Period | | | INTEGER (1..16,...) | |

### 9.2.3.8 Paging Indicator Length

The Paging Indicator Length indicates the number of symbols for Page Indication transmitted in one timeslot (see ref [19]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Paging Indicator Length | | | ENUMERATED (2, 4, 8,…) | |

### 9.2.3.9 PCCPCH Power

The Primary CCPCH power is the power that shall be used for transmitting the P CCPCH in a cell. The P CCPCH power is the reference power in a TDD-cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the Primary CCPCH power is the linear sum of the power that is used for transmitting the Primary CCPCH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PCCPCH Power | | | INTEGER (-15..+40,…) | Unit: dBm<br>Range: -15 ..+40 dBm<br>Step: 0.1 dB |

### 9.2.3.10 PDSCH ID

The PDSCH ID identifies unambiguously a PDSCH inside a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PDSCH ID | | | INTEGER (0..255) | |

### 9.2.3.11 PDSCH Set ID

The PDSCH Set Id identifies unambiguously a PDSCH Set inside a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PDSCH Set ID | | | INTEGER (0..255) | See ref. [6] |

### 9.2.3.11A Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [5].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CCPCH RSCP | | | INTEGER (0..91) | According to mapping of the non-negative values in ref. [23]. |

### 9.2.3.11B Primary CCPCH RSCP Delta

Primary CCPCH RSCP Delta is the offset used to report the negative reporting range of P-CCPCH RSCP as per [23].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CCPCH RSCP Delta | | | INTEGER(-5..-1,…) | If present, the actual value of Primary CCPCH RSCP = Primary CCPCH RSCP Delta |

### 9.2.3.12 PUSCH ID

The PUSCH ID identifies unambiguously a PUSCH inside a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PUSCH ID | | | INTEGER (0..255) | |

### 9.2.3.13 PUSCH Set ID

The PUSCH Set ID identifies unambiguously a PUSCH Set inside a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PUSCH Set ID | | | INTEGER (0..255) | See ref. [6] |

### 9.2.3.14 PRACH Midamble

The PRACH Midamble indicates if only the Basic Midamble Sequence or also the time-inverted Midamble Sequence is used.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PRACH Midamble | | | ENUMERATED ( Inverted, Direct, …) | |

### 9.2.3.14A Reference Clock Availability

The *Reference Clock Availability* IE is used to indicate the presence and operating of a Reference Clock connected to a TDD cell for cell synchronisation purpose.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Reference Clock Availability | | | ENUMERATED ( Available, Not Available) | |

### 9.2.3.14B Reference SFN Offset

The *Reference SFN Offset* IE indicates the number of frames the reference SFN shall be shifted compared to the SFN derived from the synchronisation port.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Reference SFN Offset | | | INTEGER (0..255) | |

### 9.2.3.15 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Repetition Length | | | INTEGER (1..63) | |

### 9.2.3.16 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot *K* is assigned to a physical channel in the Radio Frame *J*, it is assigned to the same physical channel also in all the Radio Frames *J+n*Repetition Period* (where *n* is an integer) see ref. [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Repetition Period | | | ENUMERATED (1, 2, 4, 8, 16, 32, 64,…) | |

### 9.2.3.17 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that shall be assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SCH Time Slot | | | INTEGER (0..6) | |

### 9.2.3.18 Sync Case

The SCH and PCCPCH are mapped on one or two downlink slots per frame. There are two cases of SCH and PCCPCH allocation as follows:

Case 1) SCH and PCCPCH allocated in a single TS#k

Case 2) SCH allocated in two TS: TS#k and TS#k+8
PCCPCH allocated in TS#k

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from CRNC to Node B used for 1.28Mcps TDD, the CRNC should indicate Sync Case 1 and the Node B shall ignore it.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Sync Case | | | INTEGER (1..2,…) | |

### 9.2.3.18A Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Special Burst Scheduling | | | INTEGER (1..256) | Number of frames between special burst transmission during DTX |

### 9.2.3.18B SYNC_DL Code ID

The SYNC_DL Code ID identifies the SYNC_DL Code which used by DwPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SYNC_DL Code ID | | | INTEGER (1..32,...) | |

### 9.2.3.18C Sync Frame Number

The *Sync Frame Number* IE indicates the number of the Sync frame within a Synchronisation Cycle or Subcycle, respectively, where the cell synchronisation bursts shall be transmitted or the cell synchronisation bursts from the neighbouring cells shall be measured.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Sync Frame Number | | | INTEGER (1..10) | |

### 9.2.3.18D Synchronisation Report Characteristics

The *Synchronisation Report Characteristics* IE defines how the reporting on measured [3.84Mcps TDD - cell synchronisation bursts] [1.28Mcps TDD – Sync_DL Codes] shall be performed

Different methods shall apply for the measured [3.84Mcps TDD - cell synchronisation burst] [1.28Mcps TDD – Sync_DL Codes] reports. [3.84Mcps TDD - In the frequency acquisition phase the measurement report shall be sent when the frequency locking is completed.] In the initial phase and for the measurement on late-entrant cells an immediate report after the measured frame is expected.

In the steady-state phase measurement reports may be given after every measured frame, after every SFN period, after every cycle length or only when the requested threshold is exceeded.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Synchronisation Report Characteristics Type | M | | ENUMERATED ( Frame related, SFN period related, Cycle length related, Threshold exceeding, Frequency Acquisition completed, ...) | |

| | | | | |
|---|---|---|---|---|
| **Threshold Exceeding** | C-Threshold Exceeding | | | Applies only to the Steady State Phase |
| **>Cell Sync Burst Threshold Information** | | *0..<maxnoofCellSyncBursts>* | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. |
| >>Sync Frame Number To Receive | M | | Sync Frame Number 9.2.3.18C | |
| **>>Cell Sync Burst Information** | | *1..<maxnoofreceptionsperSyncFrame>* | | |
| >>>Cell Sync Burst Code | M | | 9.2.3.4G | |
| >>>Cell Sync Burst Code Shift | M | | 9.2.3.4H | |
| >>>Cell Sync Burst Arrival Time | O | | Cell Sync Burst Timing 9.2.3.4L | |
| >>>Cell Sync Burst Timing Threshold | O | | 9.2.3.4M | |
| **>SYNC_DL Code Threshold Information LCR** | | *0..<maxnoofSyncFramesLCR>* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. |
| >>Sync Frame Number To Receive | M | | Sync Frame Number 9.2.3.18C | |
| **>>SYNC_DL Code Information LCR** | | *1..<maxnoofreceptionsperSyncFrameLCR>* | | |
| >>>SYNC_DL Code ID | M | | 9.2.3.18B | |
| >>>SYNC_DL Code ID Arrival Time | O | | Cell Sync Burst Timing LCR 9.2.3.4La | |
| >>>SYNC_DL Code ID Timing Threshold | O | | Cell Sync Burst Timing Threshold 9.2.3.4M | |

| Range Bound | Explanation |
|---|---|
| *maxnoofCellSyncBursts* | Maximum number of cell synchronisation burst per cycle for 3.84Mcps TDD |
| *maxnoofreceptionsperSyncFrame* | Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD |
| *maxnoofSyncFramesLCR* | Maximum number of SYNC Frames per repetition period for 1.28Mcps TDD |
| *maxnoofreceptionsperSyncFrameLCR* | Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD |

## 9.2.3.18E Synchronisation Report Type

The *Synchronisationt Report Type* IE represents the individual types of synchronisation reports that shall apply within the individual synchronisation phases. (see [17]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Synchronisation Report Type | | | ENUMERATED ( Initial Phase, Steady-State Phase, Late-Entrant Cell, Frequency Acquisition, ...) | |

### 9.2.3.18F TDD ACK NACK Power Offset

The *TDD ACK NACK Power Offset* IE indicates Power offset used in the UL in the HS-SICH between transmissions carrying positive and negative acknowledgements as per [18].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| TDD ACK NACK Power Offset | | | INTEGER (-7..8,…) | Unit: dB<br>Range: -7..+8 dB<br>Step: 1 dB |

### 9.2.3.19 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD Channelisation Code | | | ENUMERATED (<br>(1/1),<br>(2/1), (2/2),<br>(4/1), .. (4/4),<br>(8/1), .. (8/8),<br>(16/1), .. (16/16),…) | |

### 9.2.3.19a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD Channelisation Code | | | 9.2.3.19 | |
| Modulation | | | ENUMERATED (QPSK, 8PSK,…) | Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD |

### 9.2.3.19A TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The *Offset Type* IE = "No Initial Offset" is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The *Offset Type* IE = "Initial Offset" is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offet for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset *mod* Repetition period, see ref. [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Offset Type* | | | | |
| *>Initial Offset* | | | | |
| >>TDD DPCH Offset Value | M | | INTEGER (0..255) | |
| *>No Initial Offset* | | | | |
| >>TDD DPCH Offset Value | M | | INTEGER (0..63) | |

### 9.2.3.19B TDD DL Code Information

The *TDD DL Code Information* IE provides DL Code information for the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **TDD DL Code Information** | | *1..<maxnoofDPCHs>* | | |
| >DPCH ID | M | | 9.2.3.5 | |
| >TDD Channelisation Code | M | | 9.2.3.19 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDPCHs* | Maximum number of DPCHs in one CCTrCH |

## 9.2.3.19C TDD DL Code Information LCR

The *TDD DL Code Information LCR* IE provides DL Code information for the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **TDD DL Code Information LCR** | | *1..<maxnoofDPCHsLCR>* | | |
| >DPCH ID | M | | 9.2.3.5 | |
| >TDD Channelisation Code LCR | M | | 9.2.3.19a | |
| >TDD DL DPCH Time Slot Format LCR | M | | 9.2.3.19D | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDPCHsLCR* | Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD |

## 9.2.3.19D TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [19]). It also applies to PDSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Modulation* | M | | | |
| *>QPSK* | | | | |
| >>QPSK TDD DL DPCH Time Slot Format LCR | M | | INTEGER (0..24,…) | |
| *>8PSK* | | | | |
| >>8PSK TDD DL DPCH Time Slot Format LCR | M | | INTEGER (0..24,…) | |

## 9.2.3.20 TDD Physical Channel Offset

The Offset represents the phase information for the allocation of a physical channel. (SFN mod Repetition Period = Offset) see ref. [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD Physical Channel Offset | | | INTEGER (0..63) | |

## 9.2.3.21 TDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD TPC Downlink Step Size | | | ENUMERATED (1, 2, 3,…) | Unit: dB |

### 9.2.3.21a TDD TPC UL Step Size

This parameter indicates step size for the UL power adjustment (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD TPC Uplink Step Size | | | ENUMERATED (1, 2, 3,…) | Unit: dB |

### 9.2.3.21A TDD UL Code Information

The *TDD UL Code Information* IE provides information for UL Code to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **TDD UL Code Information** | | *1..<maxnoofDPCHs>* | | |
| >DPCH ID | M | | 9.2.3.5 | |
| >TDD Channelisation Code | M | | 9.2.3.19 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDPCHs* | Maximum number of DPCHs in one CCTrCH |

### 9.2.3.21B TDD UL Code Information LCR

The *TDD UL Code Information LCR* IE provides information for UL Code to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **TDD UL Code Information LCR** | | *1..<maxnoofDPCHsLCR>* | | |
| >DPCH ID | M | | 9.2.3.5 | |
| >TDD Channelisation Code LCR | M | | 9.2.3.19a | |
| >TDD UL DPCH Time Slot Format LCR | M | | 9.2.3.21C | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDPCHsLCR* | Maximum number of DPCHs in one CCTrCH for 1.28Mcps TDD |

### 9.2.3.21C TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [19]). It also applies to PUSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Modulation* | M | | | |
| *>QPSK* | | | | |
| >>QPSK TDD UL DPCH Time Slot Format LCR | M | | INTEGER (0..69,…) | |
| *>8PSK* | | | | |
| >>8PSK TDD UL DPCH Time Slot Format LCR | M | | INTEGER (0..24,…) | |

### 9.2.3.22 TFCI Coding

The TFCI Coding describes the way how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TFCI Coding | | | ENUMERATED (4, 8, 16, 32,…) | |

### 9.2.3.22a Timing Adjustment Value

The *Timing Adjustment Value* IE indicates the timing correction within a Frame for 3.84Mcps TDD. Type 1 is used for the initial phase of Node B synchronisation. Type 2 is used for the steady-state phase of Node B synchronisation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Phase* | | | | According to mapping in [23] |
| *>Initial Phase* | | | | |
| >>Timing Adjustment Value | M | | INTEGER (0..1048575,…) | |
| *>Steady State Phase* | | | | |
| >>Timing Adjustment Value | M | | INTEGER (0..255,…) | |

### 9.2.3.22b Timing Adjustment Value LCR

The *Timing Adjustment Value LCR* IE indicates the timing correction within a Frame for 1.28Mcps TDD. Type 1 is used for the initial phase of Node B synchronisation. Type 2 is used for the steady-state phase of Node B synchronisation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Phase* | | | | According to mapping in [23] |
| *>Initial Phase* | | | | |
| >>Timing Adjustment Value | M | | INTEGER (0.. 524287,…) | |
| *>Steady State Phase* | | | | |
| >>Timing Adjustment Value | M | | INTEGER (0..127,…) | |

### 9.2.3.22A Timing Advance Applied

Defines the need for Rx Timing Deviation measurement results to be reported in a particular cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Timing Advance Applied | | | ENUMERATED (<br>Yes,<br>No) | |

### 9.2.3.23 Time Slot

The Time Slot represents the minimum time interval inside a Radio Frame that can be assigned to a Physical Channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Time Slot | | | INTEGER (0..14) | |

### 9.2.3.24 Time Slot Direction

This parameter indicates whether the TS in the cell is used in Uplink or Downlink direction.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Time Slot Direction | | | ENUMERATED (<br>UL,<br>DL,<br>…) | |

### 9.2.3.24A Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Time Slot LCR | | | INTEGER (0..6) | |

### 9.2.3.25 Time Slot Status

This parameter indicates whether the TS in the cell is active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Time Slot Status | | | ENUMERATED (<br>Active,<br>Not Active,<br>…) | |

### 9.2.3.26 Transmission Diversity Applied

Defines if Transmission Diversity on physical channels that may use closed loop transmit diversity is to be applied in a cell (see ref. [19]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transmission Diversity Applied | | | BOOLEAN | True: Transmission Diversity shall be applied in this Cell.<br>False: Transmission Diversity shall not be applied in this Cell. |

### 9.2.3.26A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the Node B, see ref. [5].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL Timeslot ISCP | | | INTEGER (0..127) | According to mapping in [23]. |

### 9.2.3.26B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL PhysCH SF Variation | | | ENUMERATED ( SF_Variation_supported, SF_Variation_NOT_supported) | |

### 9.2.3.26C UL Timeslot Information

The *UL Timeslot Information* IE provides information on the time slot allocation for an UL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **UL Timeslot Information** | | *1..<maxnoofULts>* | | |
| >Time Slot | M | | 9.2.3.23 | |
| >Midamble Shift And Burst Type | M | | 9.2.3.7 | |
| >TFCI Presence | M | | 9.2.1.57 | |
| >UL Code Information | M | | TDD UL Code Information 9.2.3.21A | |

| Range Bound | Explanation |
|---|---|
| *maxnoofULts* | Maximum number of Uplink time slots per Radio Link |

### 9.2.3.26D UL Time Slot ISCP Info

The *UL Time Slot ISCP Info* IE provides information for UL Interfernce level for each time slot within the Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **UL Time Slot ISCP Info** | | *1..<maxnoofULts>* | | |
| >Time Slot | M | | 9.2.3.23 | |
| >UL Timeslot ISCP | M | | 9.2.3.26A | |

| Range Bound | Explanation |
|---|---|
| *maxnoofULts* | Maximum number of Uplink time slots per Radio Link |

### 9.2.3.26E UL Timeslot Information LCR

The *UL Timeslot Information* IE provides information on the time slot allocation for an UL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **UL Timeslot Information LCR** | | *1..<maxnoofULtsLCR>* | | |
| >Time Slot LCR | M | | 9.2.3.24A | |
| >Midamble Shift LCR | M | | 9.2.3.7A | |
| >TFCI Presence | M | | 9.2.1.57 | |
| >UL Code Information | M | | TDD UL Code Information LCR 9.2.3.21B | |

| Range Bound | Explanation |
|---|---|
| *maxnoofULtsLCR* | Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD. |

## 9.2.3.26F UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interfernce level for each time slot within the Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **UL Time Slot ISCP Info LCR** | | *1..<maxnoofULtsLCR>* | | |
| >Time Slot LCR | M | | 9.2.3.24A | |
| >UL Timeslot ISCP | M | | 9.2.3.26A | |

| Range Bound | Explanation |
|---|---|
| *maxnoofULtsLCR* | Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD |

## 9.2.3.26G Uplink Synchronisation Frequency

The *UL Synchronisation Frequency* IE specifies the frequency of the adjustment of the uplink transmission timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink Synchronisation Frequency | | | INTEGER (1..8) | Unit: subframe<br>Step: 1 |

## 9.2.3.26H Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink Synchronisation Step Size | | | INTEGER (1..8) | Unit: 1/8 chip<br>Step: 1. |

## 9.2.3.27 USCH ID

The USCH ID uniquely identifies a USCH within a Node B Communication Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| USCH ID | | | INTEGER (0..255) | |

### 9.2.3.28 USCH Information

The *USCH Information* IE provides information for USCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **USCH Information** | | *1..<maxnoofUSCHs>* | | | – | |
| >USCH ID | M | | 9.2.3.27 | | – | |
| >CCTrCH ID | M | | 9.2.3.3 | UL CCTrCH in which the USCH is mapped | – | |
| >Transport Format Set | M | | 9.2.1.59 | For USCH | – | |
| >Allocation/Retention Priority | M | | 9.2.1.1A | | – | |
| >Binding ID | O | | 9.2.1.4 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >Transport Layer Address | O | | 9.2.1.63 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >TNL QoS | O | | 9.2.1.58A | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofUSCHs* | Maximum number of USCHs for one UE |

### 9.2.3.29 USCH Information Response

The *USCH Information Response* IE provides information for USCHs that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **USCH Information Response** | | *1..<maxnoofUSCHs>* | | |
| >USCH ID | M | | 9.2.3.27 | |
| >Binding ID | O | | 9.2.1.4 | |
| >Transport Layer Address | O | | 9.2.1.63 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofUSCHs* | Maximum number of USCHs for one UE |

### 9.2.3.30 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to beacon channels (see ref. [19]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SCTD Indicator | | | ENUMERATED ( active, inactive) | |

# 9.3 Message and Information Element Abstract Syntax (with ASN.1)

## 9.3.0 General

Subclause 9.3 presents the Abstract Syntax of NBAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclauses 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of NBAP messages. NBAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a NBAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.
- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list where the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a NBAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

## 9.3.1 Usage of Private Message mechanism for non-standard use

The private message mechanism for non-standard use may be used.

- For special operator- (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multi-vendor inter-operability.
- By vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

## 9.3.2 Elementary Procedure Definitions

```
-- **************************************************************
--
-- Elementary Procedure definitions
--
-- **************************************************************

NBAP-PDU-Descriptions {
```

```
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Descriptions (0) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Criticality,
    ProcedureID,
    MessageDiscriminator,
    TransactionID
FROM NBAP-CommonDataTypes

    CommonTransportChannelSetupRequestFDD,
    CommonTransportChannelSetupRequestTDD,
    CommonTransportChannelSetupResponse,
    CommonTransportChannelSetupFailure,
    CommonTransportChannelReconfigurationRequestFDD,
    CommonTransportChannelReconfigurationRequestTDD,
    CommonTransportChannelReconfigurationResponse,
    CommonTransportChannelReconfigurationFailure,
    CommonTransportChannelDeletionRequest,
    CommonTransportChannelDeletionResponse,
    BlockResourceRequest,
    BlockResourceResponse,
    BlockResourceFailure,
    UnblockResourceIndication,
    AuditFailure,
    AuditRequiredIndication,
    AuditRequest,
    AuditResponse,
    CommonMeasurementInitiationRequest,
    CommonMeasurementInitiationResponse,
    CommonMeasurementInitiationFailure,
    CommonMeasurementReport,
    CommonMeasurementTerminationRequest,
    CommonMeasurementFailureIndication,
    CellSetupRequestFDD,
    CellSetupRequestTDD,
    CellSetupResponse,
    CellSetupFailure,
    CellReconfigurationRequestFDD,
    CellReconfigurationRequestTDD,
    CellReconfigurationResponse,
    CellReconfigurationFailure,
    CellDeletionRequest,
    CellDeletionResponse,
```

```
    InformationExchangeInitiationRequest,
    InformationExchangeInitiationResponse,
    InformationExchangeInitiationFailure,
    InformationReport,
    InformationExchangeTerminationRequest,
    InformationExchangeFailureIndication,
    BearerRearrangementIndication,
    ResourceStatusIndication,
    SystemInformationUpdateRequest,
    SystemInformationUpdateResponse,
    SystemInformationUpdateFailure,
    ResetRequest,
    ResetResponse,
    RadioLinkActivationCommandFDD,
    RadioLinkActivationCommandTDD,
    RadioLinkPreemptionRequiredIndication,
    RadioLinkSetupRequestFDD,
    RadioLinkSetupRequestTDD,
    RadioLinkSetupResponseFDD,
    RadioLinkSetupResponseTDD,
    RadioLinkSetupFailureFDD,
    RadioLinkSetupFailureTDD,
    RadioLinkAdditionRequestFDD,
    RadioLinkAdditionRequestTDD,
    RadioLinkAdditionResponseFDD,
    RadioLinkAdditionResponseTDD,
    RadioLinkAdditionFailureFDD,
    RadioLinkAdditionFailureTDD,
    RadioLinkParameterUpdateIndicationFDD,
    RadioLinkParameterUpdateIndicationTDD,
    RadioLinkReconfigurationPrepareFDD,
    RadioLinkReconfigurationPrepareTDD,
    RadioLinkReconfigurationReady,
    RadioLinkReconfigurationFailure,
    RadioLinkReconfigurationCommit,
    RadioLinkReconfigurationCancel,
    RadioLinkReconfigurationRequestFDD,
    RadioLinkReconfigurationRequestTDD,
    RadioLinkReconfigurationResponse,
    RadioLinkDeletionRequest,
    RadioLinkDeletionResponse,
    DL-PowerControlRequest,
    DL-PowerTimeslotControlRequest,
    DedicatedMeasurementInitiationRequest,
    DedicatedMeasurementInitiationResponse,
    DedicatedMeasurementInitiationFailure,
    DedicatedMeasurementReport,
    DedicatedMeasurementTerminationRequest,
    DedicatedMeasurementFailureIndication,
    RadioLinkFailureIndication,
    RadioLinkRestoreIndication,
    CompressedModeCommand,
    ErrorIndication,
    PrivateMessage,
```

```
    PhysicalSharedChannelReconfigurationRequestTDD,
    PhysicalSharedChannelReconfigurationRequestFDD,
    PhysicalSharedChannelReconfigurationResponse,
    PhysicalSharedChannelReconfigurationFailure,
    CellSynchronisationInitiationRequestTDD,
    CellSynchronisationInitiationResponseTDD,
    CellSynchronisationInitiationFailureTDD,
    CellSynchronisationReconfigurationRequestTDD,
    CellSynchronisationReconfigurationResponseTDD,
    CellSynchronisationReconfigurationFailureTDD,
    CellSynchronisationAdjustmentRequestTDD,
    CellSynchronisationAdjustmentResponseTDD,
    CellSynchronisationAdjustmentFailureTDD,
    CellSynchronisationReportTDD,
    CellSynchronisationTerminationRequestTDD,
    CellSynchronisationFailureIndicationTDD,
    MBMSNotificationUpdateCommand
FROM NBAP-PDU-Contents

    id-audit,
    id-auditRequired,
    id-blockResource,
    id-cellDeletion,
    id-cellReconfiguration,
    id-cellSetup,
    id-cellSynchronisationInitiation,
    id-cellSynchronisationReconfiguration,
    id-cellSynchronisationReporting,
    id-cellSynchronisationTermination,
    id-cellSynchronisationFailure,
    id-commonMeasurementFailure,
    id-commonMeasurementInitiation,
    id-commonMeasurementReport,
    id-commonMeasurementTermination,
    id-commonTransportChannelDelete,
    id-commonTransportChannelReconfigure,
    id-commonTransportChannelSetup,
    id-compressedModeCommand,
    id-dedicatedMeasurementFailure,
    id-dedicatedMeasurementInitiation,
    id-dedicatedMeasurementReport,
    id-dedicatedMeasurementTermination,
    id-downlinkPowerControl,
    id-downlinkPowerTimeslotControl,
    id-errorIndicationForDedicated,
    id-errorIndicationForCommon,
    id-informationExchangeFailure,
    id-informationExchangeInitiation,
    id-informationReporting,
    id-informationExchangeTermination,
    id-BearerRearrangement,
    id-mBMSNotificationUpdate,
    id-physicalSharedChannelReconfiguration,
    id-privateMessageForDedicated,
```

```
    id-privateMessageForCommon,
    id-radioLinkActivation,
    id-radioLinkAddition,
    id-radioLinkDeletion,
    id-radioLinkFailure,
    id-radioLinkParameterUpdate,
    id-radioLinkPreemption,
    id-radioLinkRestoration,
    id-radioLinkSetup,
    id-reset,
    id-resourceStatusIndication,
    id-cellSynchronisationAdjustment,
    id-synchronisedRadioLinkReconfigurationCancellation,
    id-synchronisedRadioLinkReconfigurationCommit,
    id-synchronisedRadioLinkReconfigurationPreparation,
    id-systemInformationUpdate,
    id-unblockResource,
    id-unSynchronisedRadioLinkReconfiguration
FROM NBAP-Constants;

-- **************************************************************
--
-- Interface Elementary Procedure Class
--
-- **************************************************************

NBAP-ELEMENTARY-PROCEDURE ::= CLASS {
    &InitiatingMessage                ,
    &SuccessfulOutcome                OPTIONAL,
    &UnsuccessfulOutcome              OPTIONAL,
    &Outcome                          OPTIONAL,
    &messageDiscriminator             MessageDiscriminator,
    &procedureID                      ProcedureID     UNIQUE,
    &criticality                      Criticality     DEFAULT ignore
}

WITH SYNTAX {
    INITIATING MESSAGE                &InitiatingMessage
    [SUCCESSFUL OUTCOME               &SuccessfulOutcome]
    [UNSUCCESSFUL OUTCOME             &UnsuccessfulOutcome]
    [OUTCOME                          &Outcome]
    MESSAGE DISCRIMINATOR             &messageDiscriminator
    PROCEDURE ID                      &procedureID
    [CRITICALITY                      &criticality]
}

-- **************************************************************
--
-- Interface PDU Definition
--
-- **************************************************************

NBAP-PDU ::= CHOICE {
    initiatingMessage       InitiatingMessage,
```

```
    succesfulOutcome        SuccessfulOutcome,
    unsuccesfulOutcome      UnsuccessfulOutcome,
    outcome                 Outcome,
    ...
}

InitiatingMessage ::= SEQUENCE {
    procedureID             NBAP-ELEMENTARY-PROCEDURE.&procedureID  ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality             NBAP-ELEMENTARY-PROCEDURE.&criticality  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator    NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID           TransactionID,
    value                   NBAP-ELEMENTARY-PROCEDURE.&InitiatingMessage({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

SuccessfulOutcome ::= SEQUENCE {
    procedureID             NBAP-ELEMENTARY-PROCEDURE.&procedureID  ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality             NBAP-ELEMENTARY-PROCEDURE.&criticality  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator    NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID           TransactionID,
    value                   NBAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

UnsuccessfulOutcome ::= SEQUENCE {
    procedureID             NBAP-ELEMENTARY-PROCEDURE.&procedureID  ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality             NBAP-ELEMENTARY-PROCEDURE.&criticality  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator    NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID           TransactionID,
    value                   NBAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

Outcome ::= SEQUENCE {
    procedureID             NBAP-ELEMENTARY-PROCEDURE.&procedureID  ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality             NBAP-ELEMENTARY-PROCEDURE.&criticality  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator    NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID           TransactionID,
    value                   NBAP-ELEMENTARY-PROCEDURE.&Outcome  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

-- **************************************************************
--
-- Interface Elementary Procedure List
--
-- **************************************************************

NBAP-ELEMENTARY-PROCEDURES NBAP-ELEMENTARY-PROCEDURE ::= {
    NBAP-ELEMENTARY-PROCEDURES-CLASS-1          |
    NBAP-ELEMENTARY-PROCEDURES-CLASS-2          ,
    ...
}

NBAP-ELEMENTARY-PROCEDURES-CLASS-1 NBAP-ELEMENTARY-PROCEDURE ::= {
    cellSetupFDD                                |
    cellSetupTDD                                |
    cellReconfigurationFDD                      |
```

```
    cellReconfigurationTDD                              |
    cellDeletion                                        |
    commonTransportChannelSetupFDD                      |
    commonTransportChannelSetupTDD                      |
    commonTransportChannelReconfigureFDD                |
    commonTransportChannelReconfigureTDD                |
    commonTransportChannelDelete                        |
    audit                                               |
    blockResource                                       |
    radioLinkSetupFDD                                   |
    radioLinkSetupTDD                                   |
    systemInformationUpdate                             |
    commonMeasurementInitiation                         |
    radioLinkAdditionFDD                                |
    radioLinkAdditionTDD                                |
    radioLinkDeletion                                   |
    reset                                               |
    synchronisedRadioLinkReconfigurationPreparationFDD  |
    synchronisedRadioLinkReconfigurationPreparationTDD  |
    unSynchronisedRadioLinkReconfigurationFDD           |
    unSynchronisedRadioLinkReconfigurationTDD           |
    dedicatedMeasurementInitiation                      |
    physicalSharedChannelReconfigurationTDD            ,
    ...,
    informationExchangeInitiation                       |
    cellSynchronisationInitiationTDD                    |
    cellSynchronisationReconfigurationTDD               |
    cellSynchronisationAdjustmentTDD                    |
    physicalSharedChannelReconfigurationFDD
}

NBAP-ELEMENTARY-PROCEDURES-CLASS-2 NBAP-ELEMENTARY-PROCEDURE ::= {
    resourceStatusIndication                            |
    auditRequired                                       |
    commonMeasurementReport                             |
    commonMeasurementTermination                        |
    commonMeasurementFailure                            |
    synchronisedRadioLinkReconfigurationCommit          |
    synchronisedRadioLinkReconfigurationCancellation    |
    radioLinkFailure                                    |
    radioLinkPreemption                                 |
    radioLinkRestoration                                |
    dedicatedMeasurementReport                          |
    dedicatedMeasurementTermination                     |
    dedicatedMeasurementFailure                         |
    downlinkPowerControlFDD                             |
    downlinkPowerTimeslotControl                        |
    compressedModeCommand                               |
    unblockResource                                     |
    errorIndicationForDedicated                         |
    errorIndicationForCommon                            |
    privateMessageForDedicated                          |
    privateMessageForCommon                            ,
    ...,
```

```
    informationReporting                            |
    informationExchangeTermination                  |
    informationExchangeFailure                      |
    cellSynchronisationReportingTDD                 |
    cellSynchronisationTerminationTDD               |
    cellSynchronisationFailureTDD                   |
    bearerRearrangement                             |
    radioLinkActivationFDD                          |
    radioLinkActivationTDD                          |
    radioLinkParameterUpdateFDD                     |
    radioLinkParameterUpdateTDD                     |
    mBMSNotificationUpdate
}

-- **************************************************************
--
-- Interface Elementary Procedures
--
-- **************************************************************

-- Class 1

-- *** CellSetup (FDD) ***
cellSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellSetupRequestFDD
    SUCCESSFUL OUTCOME      CellSetupResponse
    UNSUCCESSFUL OUTCOME    CellSetupFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSetup, ddMode fdd }
    CRITICALITY             reject
}

-- *** CellSetup (TDD) ***
cellSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellSetupRequestTDD
    SUCCESSFUL OUTCOME      CellSetupResponse
    UNSUCCESSFUL OUTCOME    CellSetupFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSetup, ddMode tdd }
    CRITICALITY             reject
}

-- *** CellReconfiguration(FDD) ***
cellReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellReconfigurationRequestFDD
    SUCCESSFUL OUTCOME      CellReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CellReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellReconfiguration, ddMode fdd }
    CRITICALITY             reject
}

-- *** CellReconfiguration(TDD) ***
cellReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
```

```
    INITIATING MESSAGE      CellReconfigurationRequestTDD
    SUCCESSFUL OUTCOME      CellReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CellReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellReconfiguration, ddMode tdd }
    CRITICALITY             reject
}

-- *** CellDeletion ***
cellDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellDeletionRequest
    SUCCESSFUL OUTCOME      CellDeletionResponse
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellDeletion, ddMode common }
    CRITICALITY             reject
}

-- *** CommonTransportChannelSetup (FDD) ***
commonTransportChannelSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelSetupRequestFDD
    SUCCESSFUL OUTCOME      CommonTransportChannelSetupResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelSetupFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelSetup, ddMode fdd }
    CRITICALITY             reject
}

-- *** CommonTransportChannelSetup (TDD) ***
commonTransportChannelSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelSetupRequestTDD
    SUCCESSFUL OUTCOME      CommonTransportChannelSetupResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelSetupFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelSetup, ddMode tdd }
    CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (FDD) ***
commonTransportChannelReconfigureFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode fdd }
    CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (TDD) ***
commonTransportChannelReconfigureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode tdd }
```

```
    CRITICALITY             reject
}

-- *** CommonTransportChannelDelete ***
commonTransportChannelDelete NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelDeletionRequest
    SUCCESSFUL OUTCOME      CommonTransportChannelDeletionResponse
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelDelete, ddMode common }
    CRITICALITY             reject
}

-- *** Audit ***
audit NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      AuditRequest
    SUCCESSFUL OUTCOME      AuditResponse
    UNSUCCESSFUL OUTCOME    AuditFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-audit, ddMode common }
    CRITICALITY             reject
}

-- *** BlockResourceRequest ***
blockResource NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      BlockResourceRequest
    SUCCESSFUL OUTCOME      BlockResourceResponse
    UNSUCCESSFUL OUTCOME    BlockResourceFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-blockResource, ddMode common }
    CRITICALITY             reject
}

-- *** RadioLinkSetup (FDD) ***
radioLinkSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkSetupRequestFDD
    SUCCESSFUL OUTCOME      RadioLinkSetupResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureFDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-radioLinkSetup, ddMode fdd }
    CRITICALITY             reject
}

-- *** RadioLinkSetup (TDD) ***
radioLinkSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkSetupRequestTDD
    SUCCESSFUL OUTCOME      RadioLinkSetupResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-radioLinkSetup, ddMode tdd }
    CRITICALITY             reject
}

-- *** SystemInformationUpdate ***
systemInformationUpdate NBAP-ELEMENTARY-PROCEDURE ::= {
```

```
    INITIATING MESSAGE      SystemInformationUpdateRequest
    SUCCESSFUL OUTCOME      SystemInformationUpdateResponse
    UNSUCCESSFUL OUTCOME    SystemInformationUpdateFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-systemInformationUpdate, ddMode common }
    CRITICALITY             reject
}

-- *** Reset ***
reset NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ResetRequest
    SUCCESSFUL OUTCOME      ResetResponse
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-reset, ddMode common }
    CRITICALITY             reject
}

-- *** CommonMeasurementInitiation ***
commonMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME      CommonMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    CommonMeasurementInitiationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementInitiation, ddMode common }
    CRITICALITY             reject
}

-- *** RadioLinkAddition (FDD) ***
radioLinkAdditionFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkAdditionRequestFDD
    SUCCESSFUL OUTCOME      RadioLinkAdditionResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureFDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkAddition, ddMode fdd }
    CRITICALITY             reject
}

-- *** RadioLinkAddition (TDD) ***
radioLinkAdditionTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME      RadioLinkAdditionResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureTDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkAddition, ddMode tdd }
    CRITICALITY             reject
}

-- *** RadioLinkDeletion    ***
radioLinkDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME      RadioLinkDeletionResponse
    MESSAGE DISCRIMINATOR   dedicated
```

```
    PROCEDURE ID            { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY             reject
}

-- *** SynchronisedRadioLinkReconfigurationPreparation (FDD) ***
synchronisedRadioLinkReconfigurationPreparationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationReady
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    CRITICALITY             reject
}

-- *** SynchronisedRadioLinkReconfigurationPreparation (TDD) ***
synchronisedRadioLinkReconfigurationPreparationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationReady
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    CRITICALITY             reject
}

-- *** UnSynchronisedRadioLinkReconfiguration (FDD) ***
unSynchronisedRadioLinkReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationResponse
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    CRITICALITY             reject
}

-- *** UnSynchronisedRadioLinkReconfiguration (TDD) ***
unSynchronisedRadioLinkReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationResponse
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    CRITICALITY             reject
}

-- *** DedicatedMeasurementInitiation  ***
dedicatedMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME      DedicatedMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    DedicatedMeasurementInitiationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
    CRITICALITY             reject
}
```

```
-- *** PhysicalSharedChannelReconfiguration (FDD) ***
physicalSharedChannelReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalSharedChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  PhysicalSharedChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    PhysicalSharedChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-physicalSharedChannelReconfiguration, ddMode fdd }
    CRITICALITY         reject
}

-- *** PhysicalSharedChannelReconfiguration (TDD) ***
physicalSharedChannelReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalSharedChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  PhysicalSharedChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    PhysicalSharedChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-physicalSharedChannelReconfiguration, ddMode tdd }
    CRITICALITY         reject
}

-- *** InformationExchangeInitiation ***
informationExchangeInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeInitiationRequest
    SUCCESSFUL OUTCOME      InformationExchangeInitiationResponse
    UNSUCCESSFUL OUTCOME    InformationExchangeInitiationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-informationExchangeInitiation,   ddMode common }
    CRITICALITY             reject
}

-- *** CellSynchronisationInitiation (TDD only) ***
cellSynchronisationInitiationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CellSynchronisationInitiationRequestTDD
    SUCCESSFUL OUTCOME  CellSynchronisationInitiationResponseTDD
    UNSUCCESSFUL OUTCOME    CellSynchronisationInitiationFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-cellSynchronisationInitiation, ddMode tdd }
    CRITICALITY         reject
}

-- *** CellSynchronisationReconfiguration (TDD only) ***
cellSynchronisationReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CellSynchronisationReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  CellSynchronisationReconfigurationResponseTDD
    UNSUCCESSFUL OUTCOME    CellSynchronisationReconfigurationFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-cellSynchronisationReconfiguration, ddMode tdd }
    CRITICALITY         reject
}

-- *** CellSynchronisationAdjustment (TDD only) ***
cellSynchronisationAdjustmentTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CellSynchronisationAdjustmentRequestTDD
    SUCCESSFUL OUTCOME  CellSynchronisationAdjustmentResponseTDD
```

```
    UNSUCCESSFUL OUTCOME    CellSynchronisationAdjustmentFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-cellSynchronisationAdjustment, ddMode tdd }
    CRITICALITY         reject
}

-- Class 2

-- *** ResourceStatusIndication ***
resourceStatusIndication NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ResourceStatusIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-resourceStatusIndication, ddMode common }
    CRITICALITY             ignore
}

-- *** AuditRequired ***
auditRequired NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      AuditRequiredIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-auditRequired, ddMode common }
    CRITICALITY             ignore
}

-- *** CommonMeasurementReport ***
commonMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementReport
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementReport, ddMode common }
    CRITICALITY             ignore
}

-- *** CommonMeasurementTermination ***
commonMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementTerminationRequest
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementTermination, ddMode common }
    CRITICALITY             ignore
}

-- *** CommonMeasurementFailure ***
commonMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementFailureIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementFailure, ddMode common }
    CRITICALITY             ignore
}

-- *** SynchronisedRadioLinkReconfigurationCommit ***
synchronisedRadioLinkReconfigurationCommit NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationCommit
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY             ignore
```

```
}

-- *** SynchronisedRadioReconfigurationCancellation ***
synchronisedRadioLinkReconfigurationCancellation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationCancel
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY             ignore
}

-- *** RadioLinkFailure ***
radioLinkFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkFailureIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY             ignore
}

-- *** RadioLinkPreemption ***
radioLinkPreemption NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkPreemptionRequiredIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID        { procedureCode id-radioLinkPreemption, ddMode common }
    CRITICALITY     ignore
}

-- *** RadioLinkRestoration ***
radioLinkRestoration NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkRestoreIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkRestoration, ddMode common }
    CRITICALITY             ignore
}

-- *** DedicatedMeasurementReport ***
dedicatedMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DedicatedMeasurementReport
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-dedicatedMeasurementReport, ddMode common }
    CRITICALITY             ignore
}

-- *** DedicatedMeasurementTermination  ***
dedicatedMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DedicatedMeasurementTerminationRequest
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    CRITICALITY             ignore
}

-- *** DedicatedMeasurementFailure ***
dedicatedMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DedicatedMeasurementFailureIndication
    MESSAGE DISCRIMINATOR   dedicated
```

```
    PROCEDURE ID            { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY             ignore
}

-- *** DLPowerControl (FDD only) ***
downlinkPowerControlFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DL-PowerControlRequest
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY             ignore
}

-- *** DLPowerTimeslotControl (TDD only) ***
downlinkPowerTimeslotControl NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DL-PowerTimeslotControlRequest
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    CRITICALITY             ignore
}

-- *** CompressedModeCommand (FDD only) ***
compressedModeCommand NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CompressedModeCommand
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-compressedModeCommand, ddMode fdd }
    CRITICALITY             ignore
}

-- *** UnblockResourceIndication ***
unblockResource NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      UnblockResourceIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-unblockResource, ddMode common }
    CRITICALITY             ignore
}

-- *** ErrorIndication for Dedicated procedures ***
errorIndicationForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ErrorIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-errorIndicationForDedicated, ddMode common }
    CRITICALITY             ignore
}

-- *** ErrorIndication for Common procedures ***
errorIndicationForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ErrorIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-errorIndicationForCommon, ddMode common }
    CRITICALITY             ignore
}

-- *** CellSynchronisationReporting (TDD only) ***
cellSynchronisationReportingTDD NBAP-ELEMENTARY-PROCEDURE ::= {
```

```
    INITIATING MESSAGE      CellSynchronisationReportTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSynchronisationReporting, ddMode tdd }
    CRITICALITY             ignore
}

-- *** CellSynchronisationTermination (TDD only) ***
cellSynchronisationTerminationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellSynchronisationTerminationRequestTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSynchronisationTermination, ddMode tdd }
    CRITICALITY             ignore
}

-- *** CellSynchronisationFailure (TDD only) ***
cellSynchronisationFailureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellSynchronisationFailureIndicationTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSynchronisationFailure, ddMode tdd }
    CRITICALITY             ignore
}

-- *** PrivateMessage for Dedicated procedures ***
privateMessageForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      PrivateMessage
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-privateMessageForDedicated, ddMode common }
    CRITICALITY             ignore
}

-- *** PrivateMessage for Common procedures ***
privateMessageForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      PrivateMessage
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-privateMessageForCommon, ddMode common }
    CRITICALITY             ignore
}

-- *** InformationReporting ***
informationReporting NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationReport
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-informationReporting, ddMode common }
    CRITICALITY             ignore
}

-- *** InformationExchangeTermination ***
informationExchangeTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeTerminationRequest
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-informationExchangeTermination, ddMode common }
    CRITICALITY             ignore
}
```

```
-- *** InformationExchangeFailure ***
informationExchangeFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeFailureIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY             ignore
}

-- *** BearerRearrangement ***
bearerRearrangement NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      BearerRearrangementIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-BearerRearrangement, ddMode common }
    CRITICALITY             ignore
}

-- *** RadioLinkActivation (FDD) ***
radioLinkActivationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandFDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode fdd }
    CRITICALITY             ignore
}

-- *** RadioLinkActivation (TDD) ***
radioLinkActivationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandTDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode tdd }
    CRITICALITY             ignore
}

-- *** RadioLinkParameterUpdate (FDD) ***
radioLinkParameterUpdateFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkParameterUpdateIndicationFDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
    CRITICALITY             ignore
}

-- *** RadioLinkParameterUpdate (TDD) ***
radioLinkParameterUpdateTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkParameterUpdateIndicationTDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode tdd }
    CRITICALITY             ignore
}

-- *** MBMSNotificationUpdate ***
mBMSNotificationUpdate NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      MBMSNotificationUpdateCommand
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-mBMSNotificationUpdate, ddMode common }
    CRITICALITY             ignore
```

```
}


END
```

## 9.3.3 PDU Definitions

```
-- **************************************************************
--
-- PDU definitions for NBAP.
--
-- **************************************************************

NBAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Active-Pattern-Sequence-Information,
    AddorDeleteIndicator,
    AICH-Power,
    AICH-TransmissionTiming,
    AllocationRetentionPriority,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    SCTD-Indicator,
    Cause,
    CCTrCH-ID,
    CellParameterID,
    CellPortionID,
    CellSyncBurstCode,
    CellSyncBurstCodeShift,
    CellSyncBurstRepetitionPeriod,
    CellSyncBurstSIR,
    CellSyncBurstTiming,
    CellSyncBurstTimingThreshold,
    CFN,
    ChipOffset,
    C-ID,
    Closedlooptimingadjustmentmode,
```

```
    CommonChannelsCapacityConsumptionLaw,
    Compressed-Mode-Deactivation-Flag,
    CommonMeasurementAccuracy,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonMeasurementValueInformation,
    CommonPhysicalChannelID,
    Common-PhysicalChannel-Status-Information,
    Common-TransportChannel-Status-Information,
    CommonTransportChannelID,
    CommonTransportChannel-InformationResponse,
    CommunicationControlPortID,
    ConfigurationGenerationID,
    ConstantValue,
    CriticalityDiagnostics,
    CRNC-CommunicationContextID,
    CSBMeasurementID,
    CSBTransmissionID,
    DCH-FDD-Information,
    DCH-Indicator-For-E-DCH-HSDPA-Operation,
    DCH-InformationResponse,
    DCH-ID,
    FDD-DCHs-to-Modify,
    TDD-DCHs-to-Modify,
    DCH-TDD-Information,
    DedicatedChannelsCapacityConsumptionLaw,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    DedicatedMeasurementValueInformation,
    DelayedActivation,
    DelayedActivationUpdate,
    DiversityControlField,
    DiversityMode,
    DL-DPCH-SlotFormat,
    DL-DPCH-TimingAdjustment,
    DL-or-Global-CapacityCredit,
    DL-Power,
    DL-PowerBalancing-Information,
    DL-PowerBalancing-ActivationIndicator,
    DLPowerAveragingWindowSize,
    DL-PowerBalancing-UpdatedIndicator,
    DL-ScramblingCode,
    DL-TimeslotISCP,
    DL-Timeslot-Information,
    DL-TimeslotLCR-Information,
    DL-TimeslotISCPInfo,
    DL-TimeslotISCPInfoLCR,
    DL-TPC-Pattern01Count,
    DPC-Mode,
    DPCH-ID,
    DSCH-ID,
    DSCH-InformationResponse,
    DSCH-TDD-Information,
    DwPCH-Power,
```

```
    E-AGCH-FDD-Code-Information,
    E-DCH-Capability,
    E-DCHCapacityConsumptionLaw,
    E-DCH-TTI2ms-Capability,
    E-DCH-SF-Capability,
    E-DCH-HARQ-Combining-Capability,
    E-DCH-FDD-DL-Control-Channel-Information,
    E-DCH-FDD-Information,
    E-DCH-FDD-Information-Response,
    E-DCH-FDD-Information-to-Modify,
    E-DCH-FDD-Update-Information,
    E-DCH-MACdFlow-ID,
    E-DCH-MACdFlows-Information,
    E-DCH-MACdFlows-to-Delete,
    E-DCH-RL-Indication,
    E-DCH-Serving-Cell-Change-Info-Response,
    E-DPCCH-PO,
    E-RGCH-E-HICH-FDD-Code-Information,
    E-RGCH-2-IndexStepThreshold,
    E-RGCH-3-IndexStepThreshold,
    End-Of-Audit-Sequence-Indicator,
    E-TFCS-Information,
    E-TTI,
    FDD-DL-ChannelisationCodeNumber,
    FDD-DL-CodeInformation,
    FDD-S-CCPCH-FrameOffset,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    F-DPCH-Capability,
    FirstRLS-Indicator,
    FNReportingIndicator,
    FPACH-Power,
    FrameAdjustmentValue,
    FrameHandlingPriority,
    FrameOffset,
    HARQ-Info-for-E-DCH,
    HSDPA-Capability,
    HSDSCH-Configured-Indicator,
    HS-DSCH-Serving-Cell-Change-Info,
    HS-DSCH-Serving-Cell-Change-Info-Response,
    HS-PDSCH-FDD-Code-Information,
    HS-SCCH-ID,
    HS-SCCH-FDD-Code-Information,
    HS-SICH-ID,
    IB-OC-ID,
    IB-SG-DATA,
    IB-SG-POS,
    IB-SG-REP,
    IB-Type,
    InformationExchangeID,
    InformationReportCharacteristics,
    InformationType,
    Initial-DL-DPCH-TimingAdjustment-Allowed,
    InnerLoopDLPCStatus,
```

```
    IPDL-FDD-Parameters,
    IPDL-TDD-Parameters,
    IPDL-Indicator,
    IPDL-TDD-Parameters-LCR,
    LimitedPowerIncrease,
    Local-Cell-ID,
    MaximumDL-PowerCapability,
    Maximum-Target-ReceivedTotalWideBandPower,
    MaximumTransmissionPower,
    MaxNrOfUL-DPDCHs,
    Max-Set-E-DPDCHs,
    MaxPRACH-MidambleShifts,
    MeasurementFilterCoefficient,
    MeasurementID,
    MeasurementRecoveryBehavior,
    MeasurementRecoveryReportingIndicator,
    MeasurementRecoverySupportIndicator,
    MICH-CFN,
    MICH-Mode,
    MidambleAllocationMode,
    MidambleShiftAndBurstType,
    MidambleShiftLCR,
    MinimumDL-PowerCapability,
    MinSpreadingFactor,
    MinUL-ChannelisationCodeLength,
    Modification-Period,
    MultiplexingPosition,
    NCyclesPerSFNperiod,
    NRepetitionsPerCyclePeriod,
    N-INSYNC-IND,
    N-OUTSYNC-IND,
    NeighbouringCellMeasurementInformation,
    NeighbouringFDDCellMeasurementInformation,
    NeighbouringTDDCellMeasurementInformation,
    NI-Information,
    NodeB-CommunicationContextID,
    NotificationIndicatorLength,
    NumberOfReportedCellPortions,
    NSubCyclesPerCyclePeriod,
    PagingIndicatorLength,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PDSCHSet-ID,
    PDSCH-ID,
    PICH-Mode,
    PICH-Power,
    PowerAdjustmentType,
    PowerOffset,
    PowerRaiseLimit,
    PRACH-Midamble,
    PreambleSignatures,
    PreambleThreshold,
    PredictedSFNSFNDeviationLimit,
    PredictedTUTRANGPSDeviationLimit,
```

```
    PrimaryCPICH-Power,
    Primary-CPICH-Usage-for-Channel-Estimation,
    PrimaryScramblingCode,
    PropagationDelay,
    SCH-TimeSlot,
    PunctureLimit,
    PUSCHSet-ID,
    PUSCH-ID,
    QE-Selector,
    RACH-SlotFormat,
    RACH-SubChannelNumbers,
    Reference-ReceivedTotalWideBandPower,
    ReferenceClockAvailability,
    ReferenceSFNoffset,
    RepetitionLength,
    RepetitionPeriod,
    ReportCharacteristics,
    RequestedDataValue,
    RequestedDataValueInformation,
    ResourceOperationalState,
    RL-Set-ID,
    RL-ID,
    RL-Specific-DCH-Info,
    RL-Specific-E-DCH-Info,
    Received-total-wide-band-power-Value,
    AdjustmentPeriod,
    ScaledAdjustmentRatio,
    MaxAdjustmentStep,
    RNC-ID,
    ScramblingCodeNumber,
    Secondary-CPICH-Information-Change,
    SecondaryCCPCH-SlotFormat,
    Segment-Type,
    Serving-E-DCH-RL-ID,
    SFN,
    SFNSFNChangeLimit,
    SFNSFNDriftRate,
    SFNSFNDriftRateQuality,
    SFNSFNQuality,
    ShutdownTimer,
    SIB-Originator,
    SpecialBurstScheduling,
    SignallingBearerRequestIndicator,
    Start-Of-Audit-Sequence-Indicator,
    STTD-Indicator,
    SSDT-SupportIndicator,
    SyncCase,
    SYNCDlCodeId,
    SyncFrameNumber,
    SynchronisationReportCharacteristics,
    SynchronisationReportType,
    Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio,
    T-Cell,
    T-RLFAILURE,
```

```
    TDD-ChannelisationCode,
    TDD-ChannelisationCodeLCR,
    TDD-DL-Code-LCR-Information,
    TDD-DPCHOffset,
    TDD-TPC-DownlinkStepSize,
    TDD-PhysicalChannelOffset,
    TDD-UL-Code-LCR-Information,
    TFCI-Coding,
    TFCI-Presence,
    TFCI-SignallingMode,
    TFCS,
    TimeSlot,
    TimeSlotLCR,
    TimeSlotDirection,
    TimeSlotStatus,
    TimingAdjustmentValue,
    TimingAdvanceApplied,
    TnlQos,
    ToAWE,
    ToAWS,
    TransmissionDiversityApplied,
    TransmitDiversityIndicator,
    TransmissionGapPatternSequenceCodeInformation,
    Transmission-Gap-Pattern-Sequence-Information,
    TransportBearerRequestIndicator,
    TransportFormatSet,
    TransportLayerAddress,
    TSTD-Indicator,
    TUTRANGPS,
    TUTRANGPSChangeLimit,
    TUTRANGPSDriftRate,
    TUTRANGPSDriftRateQuality,
    TUTRANGPSQuality,
    UARFCN,
    UC-Id,
    USCH-Information,
    USCH-InformationResponse,
    UL-CapacityCredit,
    UL-DPCCH-SlotFormat,
    UL-DPDCH-Indicator-For-E-DCH-Operation,
    UL-SIR,
    UL-FP-Mode,
    UL-PhysCH-SF-Variation,
    UL-ScramblingCode,
    UL-Timeslot-Information,
    UL-TimeslotLCR-Information,
    UL-TimeSlot-ISCP-Info,
    UL-TimeSlot-ISCP-LCR-Info,
    UL-TimeslotISCP-Value,
    UL-TimeslotISCP-Value-IncrDecrThres,
    USCH-ID,
    HSDSCH-FDD-Information,
    HSDSCH-FDD-Information-Response,
    HSDSCH-Information-to-Modify,
```

```
    HSDSCH-Information-to-Modify-Unsynchronised,
    HSDSCH-MACdFlow-ID,
    HSDSCH-MACdFlows-Information,
    HSDSCH-MACdFlows-to-Delete,
    HSDSCH-RNTI,
    HSDSCH-TDD-Information,
    HSDSCH-TDD-Information-Response,
    PrimaryCCPCH-RSCP,
    HSDSCH-FDD-Update-Information,
    HSDSCH-TDD-Update-Information,
    UL-Synchronisation-Parameters-LCR,
    TDD-DL-DPCH-TimeSlotFormat-LCR,
    TDD-UL-DPCH-TimeSlotFormat-LCR,
    TDD-TPC-UplinkStepSize-LCR,
    CellSyncBurstTimingLCR,
    TimingAdjustmentValueLCR,
    PrimaryCCPCH-RSCP-Delta,
    SynchronisationIndicator
FROM NBAP-IEs

    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    ProtocolIE-ContainerList{},
    NBAP-PRIVATE-IES,
    NBAP-PROTOCOL-IES,
    NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers

    id-Active-Pattern-Sequence-Information,
    id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD,
    id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD,
    id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD,
    id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD,
    id-AdjustmentRatio,
    id-AICH-Information,
    id-AICH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-BCH-Information,
    id-BCCH-ModificationTime,
    id-bindingID,
    id-BlockingPriorityIndicator,
    id-Cause,
    id-CauseLevel-PSCH-ReconfFailure,
    id-CauseLevel-RL-AdditionFailureFDD,
    id-CauseLevel-RL-AdditionFailureTDD,
    id-CauseLevel-RL-ReconfFailure,
    id-CauseLevel-RL-SetupFailureFDD,
    id-CauseLevel-RL-SetupFailureTDD,
    id-CauseLevel-SyncAdjustmntFailureTDD,
    id-CCP-InformationItem-AuditRsp,
    id-CCP-InformationList-AuditRsp,
    id-CCP-InformationItem-ResourceStatusInd,
    id-CCTrCH-InformationItem-RL-FailureInd,
```

```
    id-CCTrCH-InformationItem-RL-RestoreInd,
    id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD,
    id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD,
    id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD,
    id-CellAdjustmentInfo-SyncAdjustmntRqstTDD,
    id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD,
    id-Cell-InformationItem-AuditRsp,
    id-Cell-InformationItem-ResourceStatusInd,
    id-Cell-InformationList-AuditRsp,
    id-CellParameterID,
    id-CellPortion-InformationItem-Cell-SetupRqstFDD,
    id-CellPortion-InformationList-Cell-SetupRqstFDD,
    id-CellPortion-InformationItem-Cell-ReconfRqstFDD,
    id-CellPortion-InformationList-Cell-ReconfRqstFDD,
    id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD,
    id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD,
    id-cellSyncBurstRepetitionPeriod,
    id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD,
    id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD,
    id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD,
    id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD,
    id-CellSyncBurstInfoList-CellSyncReconfRqstTDD,
    id-CellSyncInfo-CellSyncReprtTDD,
    id-CFN,
    id-CFNReportingIndicator,
    id-C-ID,
    id-Closed-Loop-Timing-Adjustment-Mode,
    id-CommonMeasurementAccuracy,
    id-CommonMeasurementObjectType-CM-Rprt,
    id-CommonMeasurementObjectType-CM-Rqst,
    id-CommonMeasurementObjectType-CM-Rsp,
    id-CommonMeasurementType,
    id-CommonPhysicalChannelID,
    id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD,
    id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,
    id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,
    id-CommunicationContextInfoItem-Reset,
    id-CommunicationControlPortID,
    id-CommunicationControlPortInfoItem-Reset,
    id-Compressed-Mode-Deactivation-Flag,
    id-ConfigurationGenerationID,
    id-CRNC-CommunicationContextID,
    id-CriticalityDiagnostics,
    id-CSBTransmissionID,
    id-CSBMeasurementID,
    id-DCHs-to-Add-FDD,
    id-DCHs-to-Add-TDD,
    id-DCH-AddList-RL-ReconfPrepTDD,
    id-DCH-DeleteList-RL-ReconfPrepFDD,
    id-DCH-DeleteList-RL-ReconfPrepTDD,
    id-DCH-DeleteList-RL-ReconfRqstFDD,
    id-DCH-DeleteList-RL-ReconfRqstTDD,
    id-DCH-FDD-Information,
    id-DCH-TDD-Information,
```

```
    id-DCH-Indicator-For-E-DCH-HSDPA-Operation,
    id-DCH-InformationResponse,
    id-DCH-RearrangeList-Bearer-RearrangeInd,
    id-DSCH-RearrangeList-Bearer-RearrangeInd,
    id-FDD-DCHs-to-Modify,
    id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD,
    id-TDD-DCHs-to-Modify,
    id-DedicatedMeasurementObjectType-DM-Rprt,
    id-DedicatedMeasurementObjectType-DM-Rqst,
    id-DedicatedMeasurementObjectType-DM-Rsp,
    id-DedicatedMeasurementType,
    id-DelayedActivation,
    id-DelayedActivationList-RL-ActivationCmdFDD,
    id-DelayedActivationList-RL-ActivationCmdTDD,
    id-DelayedActivationInformation-RL-ActivationCmdFDD,
    id-DelayedActivationInformation-RL-ActivationCmdTDD,
    id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-InformationItem-RL-AdditionRqstTDD,
    id-DL-DPCH-InformationList-RL-SetupRqstTDD,
    id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-Information-RL-ReconfPrepFDD,
    id-DL-DPCH-Information-RL-ReconfRqstFDD,
    id-DL-DPCH-Information-RL-SetupRqstFDD,
    id-DL-DPCH-TimingAdjustment,
    id-DL-DPCH-Power-Information-RL-ReconfPrepFDD,
    id-DL-PowerBalancing-Information,
    id-DL-PowerBalancing-ActivationIndicator,
    id-DL-ReferencePowerInformationItem-DL-PC-Rqst,
    id-DL-PowerBalancing-UpdatedIndicator,
    id-DLReferencePower,
    id-DLReferencePowerList-DL-PC-Rqst,
    id-DL-TPC-Pattern01Count,
    id-DPC-Mode,
    id-DPCHConstant,
    id-DSCHs-to-Add-TDD,
    id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,
    id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,
    id-DSCH-InformationResponse,
    id-DSCH-TDD-Information,
    id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code,
    id-E-AGCH-FDD-Code-Information,
    id-E-DCH-Capability,
```

```
    id-E-DCH-TTI2ms-Capability,
    id-E-DCH-SF-Capability,
    id-E-DCH-HARQ-Combining-Capability,
    id-E-DCH-FDD-DL-Control-Channel-Information,
    id-E-DCH-FDD-Information,
    id-E-DCH-FDD-Information-Response,
    id-E-DCH-FDD-Information-to-Modify,
    id-E-DCH-FDD-Update-Information,
    id-E-DCH-MACdFlows-to-Add,
    id-E-DCH-MACdFlows-to-Delete,
    id-E-DCH-RearrangeList-Bearer-RearrangeInd,
    id-E-DCH-Resources-Information-AuditRsp,
    id-E-DCH-Resources-Information-ResourceStatusInd,
    id-E-DCH-RL-Indication,
    id-E-DCH-RL-Set-ID,
    id-E-DCH-Serving-Cell-Change-Info-Response,
    id-E-DCH-CapacityConsumptionLaw,
    id-E-DPCH-Information-RL-ReconfPrepFDD,
    id-E-DPCH-Information-RL-ReconfRqstFDD,
    id-E-DPCH-Information-RL-SetupRqstFDD,
    id-E-DPCH-Information-RL-AdditionReqFDD,
    id-E-RGCH-E-HICH-FDD-Code-Information,
    id-End-Of-Audit-Sequence-Indicator,
    id-FACH-Information,
    id-FACH-ParametersList-CTCH-ReconfRqstTDD,
    id-FACH-ParametersList-CTCH-SetupRsp,
    id-FACH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-FACH-ParametersListIE-CTCH-SetupRqstFDD,
    id-FACH-ParametersListIE-CTCH-SetupRqstTDD,
    id-F-DPCH-Capability,
    id-F-DPCH-Information-RL-ReconfPrepFDD,
    id-F-DPCH-Information-RL-SetupRqstFDD,
    id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst,
    id-HSDSCH-Configured-Indicator,
    id-HS-DSCH-Serving-Cell-Change-Info,
    id-HS-DSCH-Serving-Cell-Change-Info-Response,
    id-IndicationType-ResourceStatusInd,
    id-InformationExchangeID,
    id-InformationExchangeObjectType-InfEx-Rqst,
    id-InformationExchangeObjectType-InfEx-Rsp,
    id-InformationExchangeObjectType-InfEx-Rprt,
    id-InformationReportCharacteristics,
    id-InformationType,
    id-InitDL-Power,
    id-Initial-DL-DPCH-TimingAdjustment,
    id-Initial-DL-DPCH-TimingAdjustment-Allowed,
    id-InnerLoopDLPCStatus,
    id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD,
    id-IPDLParameter-Information-Cell-ReconfRqstFDD,
    id-IPDLParameter-Information-Cell-SetupRqstFDD,
    id-IPDLParameter-Information-Cell-ReconfRqstTDD,
    id-IPDLParameter-Information-Cell-SetupRqstTDD,
    id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD,
    id-Limited-power-increase-information-Cell-SetupRqstFDD,
```

```
    id-Local-Cell-ID,
    id-Local-Cell-Group-InformationItem-AuditRsp,
    id-Local-Cell-Group-InformationItem-ResourceStatusInd,
    id-Local-Cell-Group-InformationItem2-ResourceStatusInd,
    id-Local-Cell-Group-InformationList-AuditRsp,
    id-Local-Cell-InformationItem-AuditRsp,
    id-Local-Cell-InformationItem-ResourceStatusInd,
    id-Local-Cell-InformationItem2-ResourceStatusInd,
    id-Local-Cell-InformationList-AuditRsp,
    id-AdjustmentPeriod,
    id-MaxAdjustmentStep,
    id-MaximumTransmissionPower,
    id-MeasurementFilterCoefficient,
    id-MeasurementID,
    id-MeasurementRecoveryBehavior,
    id-MeasurementRecoveryReportingIndicator,
    id-MeasurementRecoverySupportIndicator,
    id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst,
    id-MICH-CFN,
    id-MICH-Information-AuditRsp,
    id-MICH-Information-ResourceStatusInd,
    id-MICH-Parameters-CTCH-ReconfRqstFDD,
    id-MICH-Parameters-CTCH-ReconfRqstTDD,
    id-MICH-Parameters-CTCH-SetupRqstFDD,
    id-MICH-Parameters-CTCH-SetupRqstTDD,
    id-Modification-Period,
    id-multipleRL-dl-DPCH-InformationList,
    id-multipleRL-dl-DPCH-InformationModifyList,
    id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-multiple-RL-Information-RL-ReconfPrepTDD,
    id-multiple-RL-Information-RL-ReconfRqstTDD,
    id-multipleRL-ul-DPCH-InformationList,
    id-multipleRL-ul-DPCH-InformationModifyList,
    id-NCyclesPerSFNperiod,
    id-NeighbouringCellMeasurementInformation,
    id-NI-Information-NotifUpdateCmd,
    id-NodeB-CommunicationContextID,
    id-NRepetitionsPerCyclePeriod,
    id-NumberOfReportedCellPortions,
    id-P-CCPCH-Information,
    id-P-CPICH-Information,
    id-P-SCH-Information,
    id-PCCPCH-Information-Cell-ReconfRqstTDD,
    id-PCCPCH-Information-Cell-SetupRqstTDD,
    id-PCH-Parameters-CTCH-ReconfRqstTDD,
    id-PCH-Parameters-CTCH-SetupRsp,
    id-PCH-ParametersItem-CTCH-ReconfRqstFDD,
    id-PCH-ParametersItem-CTCH-SetupRqstFDD,
    id-PCH-ParametersItem-CTCH-SetupRqstTDD,
    id-PCH-Information,
    id-PICH-ParametersItem-CTCH-ReconfRqstFDD,
    id-PDSCH-Information-AddListIE-PSCH-ReconfRqst,
    id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst,
    id-PDSCH-RL-ID,
```

```
    id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR,
    id-PDSCHSets-AddList-PSCH-ReconfRqst,
    id-PDSCHSets-DeleteList-PSCH-ReconfRqst,
    id-PDSCHSets-ModifyList-PSCH-ReconfRqst,
    id-PICH-Information,
    id-PICH-Parameters-CTCH-ReconfRqstTDD,
    id-PICH-ParametersItem-CTCH-SetupRqstTDD,
    id-PowerAdjustmentType,
    id-Power-Local-Cell-Group-choice-CM-Rqst,
    id-Power-Local-Cell-Group-choice-CM-Rsp,
    id-Power-Local-Cell-Group-choice-CM-Rprt,
    id-Power-Local-Cell-Group-InformationItem-AuditRsp,
    id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationList-AuditRsp,
    id-Power-Local-Cell-Group-InformationList-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd,
    id-Power-Local-Cell-Group-ID,
    id-PRACH-Information,
    id-PRACHConstant,
    id-PRACH-ParametersItem-CTCH-SetupRqstTDD,
    id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD,
    id-PrimaryCCPCH-Information-Cell-SetupRqstFDD,
    id-PrimaryCPICH-Information-Cell-ReconfRqstFDD,
    id-PrimaryCPICH-Information-Cell-SetupRqstFDD,
    id-Primary-CPICH-Usage-for-Channel-Estimation,
    id-PrimarySCH-Information-Cell-ReconfRqstFDD,
    id-PrimarySCH-Information-Cell-SetupRqstFDD,
    id-PrimaryScramblingCode,
    id-SCH-Information-Cell-ReconfRqstTDD,
    id-SCH-Information-Cell-SetupRqstTDD,
    id-PUSCH-Information-AddListIE-PSCH-ReconfRqst,
    id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR,
    id-PUSCHConstant,
    id-PUSCHSets-AddList-PSCH-ReconfRqst,
    id-PUSCHSets-DeleteList-PSCH-ReconfRqst,
    id-PUSCHSets-ModifyList-PSCH-ReconfRqst,
    id-RACH-Information,
    id-RACH-Parameters-CTCH-SetupRsp,
    id-RACH-ParametersItem-CTCH-SetupRqstFDD,
    id-RACH-ParameterItem-CTCH-SetupRqstTDD,
    id-ReferenceClockAvailability,
    id-ReferenceSFNoffset,
    id-ReportCharacteristics,
    id-Reporting-Object-RL-FailureInd,
    id-Reporting-Object-RL-RestoreInd,
    id-ResetIndicator,
    id-RL-ID,
    id-RL-InformationItem-DM-Rprt,
    id-RL-InformationItem-DM-Rqst,
    id-RL-InformationItem-DM-Rsp,
    id-RL-InformationItem-RL-AdditionRqstFDD,
```

```
    id-RL-informationItem-RL-DeletionRqst,
    id-RL-InformationItem-RL-FailureInd,
    id-RL-InformationItem-RL-PreemptRequiredInd,
    id-RL-InformationItem-RL-ReconfPrepFDD,
    id-RL-InformationItem-RL-ReconfRqstFDD,
    id-RL-InformationItem-RL-RestoreInd,
    id-RL-InformationItem-RL-SetupRqstFDD,
    id-RL-InformationList-RL-AdditionRqstFDD,
    id-RL-informationList-RL-DeletionRqst,
    id-RL-InformationList-RL-PreemptRequiredInd,
    id-RL-InformationList-RL-ReconfPrepFDD,
    id-RL-InformationList-RL-ReconfRqstFDD,
    id-RL-InformationList-RL-SetupRqstFDD,
    id-RL-InformationResponseItem-RL-AdditionRspFDD,
    id-RL-InformationResponseItem-RL-ReconfReady,
    id-RL-InformationResponseItem-RL-ReconfRsp,
    id-RL-InformationResponseItem-RL-SetupRspFDD,
    id-RL-InformationResponseList-RL-AdditionRspFDD,
    id-RL-InformationResponseList-RL-ReconfReady,
    id-RL-InformationResponseList-RL-ReconfRsp,
    id-RL-InformationResponseList-RL-SetupRspFDD,
    id-RL-InformationResponse-RL-AdditionRspTDD,
    id-RL-InformationResponse-RL-SetupRspTDD,
    id-RL-Information-RL-AdditionRqstTDD,
    id-RL-Information-RL-ReconfRqstTDD,
    id-RL-Information-RL-ReconfPrepTDD,
    id-RL-Information-RL-SetupRqstTDD,
    id-RL-ReconfigurationFailureItem-RL-ReconfFailure,
    id-RL-Set-InformationItem-DM-Rprt,
    id-RL-Set-InformationItem-DM-Rsp,
    id-RL-Set-InformationItem-RL-FailureInd,
    id-RL-Set-InformationItem-RL-RestoreInd,
    id-RL-Specific-DCH-Info,
    id-RL-Specific-E-DCH-Info,
    id-S-CCPCH-Information,
    id-S-CCPCH-InformationListExt-AuditRsp,
    id-S-CCPCH-InformationListExt-ResourceStatusInd,
    id-S-CCPCH-LCR-InformationListExt-AuditRsp,
    id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd,
    id-S-CPICH-Information,
    id-SCH-Information,
    id-S-SCH-Information,
    id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD,
    id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD,
    id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD,
    id-Secondary-CPICH-Information,
    id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD,
    id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD,
    id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD,
    id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD,
    id-Secondary-CPICH-Information-Change,
    id-SecondarySCH-Information-Cell-ReconfRqstFDD,
    id-SecondarySCH-Information-Cell-SetupRqstFDD,
    id-SegmentInformationListIE-SystemInfoUpdate,
```

```
    id-Serving-Cell-Change-CFN,
    id-Serving-E-DCH-RL-ID,
    id-SFN,
    id-SFNReportingIndicator,
    id-ShutdownTimer,
    id-SignallingBearerRequestIndicator,
    id-Start-Of-Audit-Sequence-Indicator,
    id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,
    id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,
    id-Synchronisation-Configuration-Cell-ReconfRqst,
    id-Synchronisation-Configuration-Cell-SetupRqst,
    id-SyncCase,
    id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH,
    id-SyncFrameNumber,
    id-SynchronisationReportType,
    id-SynchronisationReportCharacteristics,
    id-SyncReportType-CellSyncReprtTDD,
    id-T-Cell,
    id-TargetCommunicationControlPortID,
    id-Transmission-Gap-Pattern-Sequence-Information,
    id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,
    id-TimeSlotConfigurationList-Cell-SetupRqstTDD,
    id-timeslotInfo-CellSyncInitiationRqstTDD,
    id-TimeslotISCPInfo,
    id-TimingAdvanceApplied,
    id-TnlQos,
    id-TransmissionDiversityApplied,
    id-transportlayeraddress,
    id-Tstd-indicator,
    id-UARFCNforNt,
    id-UARFCNforNd,
    id-UARFCNforNu,
    id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationItem-RL-AdditionRqstTDD,
    id-UL-DPCH-InformationList-RL-SetupRqstTDD,
    id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-Information-RL-ReconfPrepFDD,
    id-UL-DPCH-Information-RL-ReconfRqstFDD,
    id-UL-DPCH-Information-RL-SetupRqstFDD,
    id-UL-DPDCH-Indicator-For-E-DCH-Operation,
    id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD,
    id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD,
```

```
    id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD,
    id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,
    id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,
    id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,
    id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,
    id-USCH-Information-Add,
    id-USCH-Information-DeleteList-RL-ReconfPrepTDD,
    id-USCH-Information-ModifyList-RL-ReconfPrepTDD,
    id-USCH-InformationResponse,
    id-USCH-Information,
    id-USCH-RearrangeList-Bearer-RearrangeInd,
    id-DL-DPCH-LCR-Information-RL-SetupRqstTDD,
    id-DwPCH-LCR-Information    ,
    id-DwPCH-LCR-InformationList-AuditRsp,
    id-DwPCH-LCR-Information-Cell-SetupRqstTDD,
    id-DwPCH-LCR-Information-Cell-ReconfRqstTDD,
    id-DwPCH-LCR-Information-ResourceStatusInd,
    id-maxFACH-Power-LCR-CTCH-SetupRqstTDD,
    id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD,
    id-FPACH-LCR-Information,
    id-FPACH-LCR-Information-AuditRsp,
    id-FPACH-LCR-InformationList-AuditRsp,
    id-FPACH-LCR-InformationList-ResourceStatusInd,
    id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD,
    id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD,
    id-PCCPCH-LCR-Information-Cell-SetupRqstTDD,
    id-PCH-Power-LCR-CTCH-SetupRqstTDD,
    id-PCH-Power-LCR-CTCH-ReconfRqstTDD,
    id-PICH-LCR-Parameters-CTCH-SetupRqstTDD,
    id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD,
    id-RL-InformationResponse-LCR-RL-SetupRspTDD    ,
    id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD,
    id-TimeSlot,
    id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD,
    id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD,
    id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD,
    id-TimeSlotLCR-CM-Rqst,
    id-UL-DPCH-LCR-Information-RL-SetupRqstTDD,
    id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
    id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
    id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD,
    id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD,
    id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD,
    id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD,
    id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD,
    id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-LCR-InformationModify-AddList,
    id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD,
    id-UL-SIRTarget,
    id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst,
    id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
    id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
    id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst,
```

```
    id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
    id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
    id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCH-Info-DM-Rqst,
    id-PUSCH-Info-DM-Rsp,
    id-PUSCH-Info-DM-Rprt,
    id-RL-InformationResponse-LCR-RL-AdditionRspTDD,
    id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD,
    id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD,
    id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst,
    id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst,
    id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst,
    id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst,
    id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst,
    id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD,
    id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD,
    id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD,
    id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD,
    id-SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD,
    id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD,
    id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD,
    id-DwPCH-Power,
    id-AccumulatedClockupdate-CellSyncReprtTDD,
    id-HSDPA-Capability,
    id-HSDSCH-FDD-Information,
    id-HSDSCH-FDD-Information-Response,
    id-HSDSCH-Information-to-Modify,
    id-HSDSCH-Information-to-Modify-Unsynchronised,
    id-HSDSCH-MACdFlows-to-Add,
    id-HSDSCH-MACdFlows-to-Delete,
    id-HSDSCH-RearrangeList-Bearer-RearrangeInd,
    id-HSDSCH-Resources-Information-AuditRsp,
    id-HSDSCH-Resources-Information-ResourceStatusInd,
    id-HSDSCH-RNTI,
    id-HSDSCH-TDD-Information,
    id-HSDSCH-TDD-Information-Response,
    id-HSPDSCH-RL-ID,
    id-HSSICH-Info-DM-Rprt,
    id-HSSICH-Info-DM-Rqst,
    id-HSSICH-Info-DM-Rsp,
    id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
    id-HSDSCH-FDD-Update-Information,
    id-HSDSCH-TDD-Update-Information,
    id-UL-Synchronisation-Parameters-LCR,
    id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
    id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
    id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD,
    id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD,
    id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD,
    id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD,
    id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD,
```

```
    id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD,
    id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD,
    id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD,
    id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD,
    id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD,
    id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD,
    id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD,
    id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD,
    id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD,
    id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
    id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD,
    id-TimingAdjustmentValueLCR,
    id-PrimaryCCPCH-RSCP-Delta,
    id-Maximum-Target-ReceivedTotalWideBandPower,
    id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp,
    id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp,
    id-SynchronisationIndicator,
    id-Reference-ReceivedTotalWideBandPower,
    id-multiple-PUSCH-InfoList-DM-Rsp,
    id-multiple-PUSCH-InfoList-DM-Rprt,
    id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio,
    id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp,
    id-tFCI-Presence,
    id-ueCapability-Info,


    maxNrOfCCTrCHs,
    maxNrOfCellSyncBursts,
    maxNrOfCodes,
    maxNrOfDCHs,
    maxNrOfDLTSs,
    maxNrOfDLTSLCRs,
    maxNrOfDPCHs,
    maxNrOfDPCHsPerRL-1,
    maxNrOfDPCHLCRs,
    maxNrOfDPCHsLCRPerRL-1,
    maxNrOfDSCHs,
    maxNrOfFACHs,
    maxNrOfRLs,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfRLSets,
    maxNrOfPDSCHs,
    maxNrOfPUSCHs,
    maxNrOfPUSCHs-1,
    maxNrOfPRACHLCRs,
    maxNrOfPDSCHSets,
    maxNrOfPUSCHSets,
    maxNrOfReceptsPerSyncFrame,
```

```
    maxNrOfSCCPCHs,
    maxNrOfSCCPCHsinExt,
    maxNrOfSCCPCHLCRs,
    maxNrOfSCCPCHsLCRinExt,
    maxNrOfULTSs,
    maxNrOfULTSLCRs,
    maxNrOfUSCHs,
    maxFACHCell,
    maxFPACHCell,
    maxNoofLen,
    maxRACHCell,
    maxPRACHCell,
    maxSCCPCHCell,
    maxSCCPCHCellinExt,
    maxSCCPCHCellinExtLCR,
    maxSCPICHCell,
    maxCellinNodeB,
    maxCCPinNodeB,
    maxCommunicationContext,
    maxLocalCellinNodeB,
    maxNrOfSlotFormatsPRACH,
    maxIB,
    maxIBSEG,
    maxNrOfCellPortionsPerCell,
    maxNrOfHSSCCHs,
    maxNrOfHSSICHs,
    maxNrOfHSSICHs-1,
    maxNrOfHSPDSCHs,
    maxNrOfSyncFramesLCR,
    maxNrOfReceptionsperSyncFrameLCR,
    maxNrOfSyncDLCodesLCR,
    maxNrOfMACdFlows,
    maxNrOfEDCHMACdFlows
FROM NBAP-Constants;

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST FDD
--
-- **************************************************************

CommonTransportChannelSetupRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelSetupRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelSetupRequestFDD-Extensions}}     OPTIONAL,
    ...
}

CommonTransportChannelSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                     CRITICALITY reject      TYPE    C-ID                        PRESENCE mandatory  }|
    { ID    id-ConfigurationGenerationID                CRITICALITY reject      TYPE    ConfigurationGenerationID   PRESENCE mandatory  }|
```

```
    { ID    id-CommonPhysicalChannelType-CTCH-SetupRqstFDD      CRITICALITY ignore      TYPE    CommonPhysicalChannelType-CTCH-SetupRqstFDD
    PRESENCE    mandatory   },
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCH-CTCH-SetupRqstFDD,
    pRACH-parameters                PRACH-CTCH-SetupRqstFDD,
    notUsed-pCPCHes-parameters      NULL,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    fdd-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode   OPTIONAL,
    -- This IE shall be present if the PCH Parameters IE is not present
    fdd-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    tFCS                                    TFCS,
    secondary-CCPCH-SlotFormat              SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE shall be present if the Secondary CCPCH Slot Format is set to any of the values from 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    powerOffsetInformation                  PowerOffsetInformation-CTCH-SetupRqstFDD,
    sTTD-Indicator                          STTD-Indicator,
    fACH-Parameters                         FACH-ParametersList-CTCH-SetupRqstFDD       OPTIONAL,
    pCH-Parameters                          PCH-Parameters-CTCH-SetupRqstFDD            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MICH-Parameters-CTCH-SetupRqstFDD           CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-SetupRqstFDD     PRESENCE optional }|
    { ID id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD   CRITICALITY reject  EXTENSION FDD-S-CCPCH-FrameOffset               PRESENCE optional },
    ...
}

PowerOffsetInformation-CTCH-SetupRqstFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs} }  OPTIONAL,
    ...
}

PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstFDD }}

FACH-ParametersListIEs-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-SetupRqstFDD   CRITICALITY reject    TYPE FACH-ParametersListIE-CTCH-SetupRqstFDD PRESENCE mandatory }
}
```

```
FACH-ParametersListIE-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstFDD

FACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    transportFormatSet                  TransportFormatSet,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    maxFACH-Power                       DL-Power,
    iE-Extensions                       ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ ID    id-bindingID                    CRITICALITY ignore      EXTENSION   BindingID                       PRESENCE    optional }|
{ ID    id-transportlayeraddress        CRITICALITY ignore      EXTENSION   TransportLayerAddress           PRESENCE    optional },
    ...
}

PCH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstFDD }}

PCH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-SetupRqstFDD   CRITICALITY reject   TYPE PCH-ParametersItem-CTCH-SetupRqstFDD   PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    transportFormatSet                  TransportFormatSet,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    pCH-Power                           DL-Power,
    pICH-Parameters                     PICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                       ProtocolExtensionContainer  { { PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-bindingID                    CRITICALITY ignore      EXTENSION   BindingID                   PRESENCE    optional }|
    { ID    id-transportlayeraddress        CRITICALITY ignore      EXTENSION   TransportLayerAddress       PRESENCE    optional },
    ...
}

PICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber     FDD-DL-ChannelisationCodeNumber,
    pICH-Power                          PICH-Power,
    pICH-Mode                           PICH-Mode,
    sTTD-Indicator                      STTD-Indicator,
    iE-Extensions                       ProtocolExtensionContainer { { PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
MICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber             FDD-DL-ChannelisationCodeNumber,
    mICH-Power                                  PICH-Power,
    mICH-Mode                                   MICH-Mode,
    sTTD-Indicator                              STTD-Indicator,
    iE-Extensions                               ProtocolExtensionContainer { { MICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

MICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    scramblingCodeNumber                        ScramblingCodeNumber,
    tFCS                                        TFCS,
    preambleSignatures                          PreambleSignatures,
    allowedSlotFormatInformation                AllowedSlotFormatInformationList-CTCH-SetupRqstFDD,
    rACH-SubChannelNumbers                      RACH-SubChannelNumbers,
    ul-punctureLimit                            PunctureLimit,
    preambleThreshold                           PreambleThreshold,
    rACH-Parameters                             RACH-Parameters-CTCH-SetupRqstFDD,
    aICH-Parameters                             AICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                               ProtocolExtensionContainer { { PRACHItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PRACHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllowedSlotFormatInformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
SetupRqstFDD

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    rACHSlotFormat                              RACH-SlotFormat,
    iE-Extensions                               ProtocolExtensionContainer  { { AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ RACH-ParametersIE-CTCH-SetupRqstFDD }}

RACH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-ParametersItem-CTCH-SetupRqstFDD   CRITICALITY reject  TYPE RACH-ParametersItem-CTCH-SetupRqstFDD  PRESENCE mandatory }
}
```

```
RACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID                    CommonTransportChannelID,
    transportFormatSet                          TransportFormatSet,
    iE-Extensions                               ProtocolExtensionContainer  { { RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
 }

RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-bindingID                        CRITICALITY ignore      EXTENSION   BindingID                       PRESENCE    optional }|
    { ID    id-transportlayeraddress            CRITICALITY ignore      EXTENSION   TransportLayerAddress           PRESENCE    optional },
    ...
}

AICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    aICH-TransmissionTiming                     AICH-TransmissionTiming,
    fdd-dl-ChannelisationCodeNumber             FDD-DL-ChannelisationCodeNumber,
    aICH-Power                                  AICH-Power,
    sTTD-Indicator                              STTD-Indicator,
    iE-Extensions                               ProtocolExtensionContainer  { { AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST TDD
--
-- **************************************************************

CommonTransportChannelSetupRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelSetupRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelSetupRequestTDD-Extensions}}          OPTIONAL,
    ...
}

CommonTransportChannelSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                     CRITICALITY reject  TYPE C-ID                                   PRESENCE mandatory   }|
    { ID    id-ConfigurationGenerationID                CRITICALITY reject  TYPE ConfigurationGenerationID              PRESENCE mandatory   }|
    { ID    id-CommonPhysicalChannelType-CTCH-SetupRqstTDD  CRITICALITY ignore  TYPE CommonPhysicalChannelType-CTCH-SetupRqstTDD     PRESENCE
    mandatory   },
    ...
}

CommonTransportChannelSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstTDD ::= CHOICE {
    secondary-CCPCH-parameters                  Secondary-CCPCH-CTCH-SetupRqstTDD,
    pRACH-parameters                            PRACH-CTCH-SetupRqstTDD,
```

```
    ...
}

Secondary-CCPCH-CTCH-SetupRqstTDD ::= SEQUENCE {
    sCCPCH-CCTrCH-ID                            CCTrCH-ID,  -- For DL CCTrCH supporting one or several Secondary CCPCHs
    tFCS                                        TFCS,       -- For DL CCTrCH supporting one or several Secondary CCPCHs
    tFCI-Coding                                 TFCI-Coding,
    punctureLimit                               PunctureLimit,
    secondaryCCPCH-parameterList                Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD,
    fACH-ParametersList                         FACH-ParametersList-CTCH-SetupRqstTDD       OPTIONAL,
    pCH-Parameters                              PCH-Parameters-CTCH-SetupRqstTDD            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer  {{Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs}}   OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Tstd-indicator                          CRITICALITY reject  EXTENSION TSTD-Indicator                        PRESENCE optional }|
    { ID id-MICH-Parameters-CTCH-SetupRqstTDD       CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-SetupRqstTDD     PRESENCE optional }|
    { ID id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD      CRITICALITY reject  EXTENSION Secondary-CCPCH-parameterExtendedList-CTCH-
SetupRqstTDD        PRESENCE optional   }|
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be established.
    { ID id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD     CRITICALITY reject  EXTENSION Secondary-CCPCH-LCR-parameterExtendedList-CTCH-
SetupRqstTDD        PRESENCE optional   },
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHLCRs SCCPCHs are to be established.
    ...
}

Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD }}

Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD   CRITICALITY reject  TYPE Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD
    PRESENCE optional }|
    { ID id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD CRITICALITY reject  TYPE Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD
    PRESENCE optional }
}

Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD

Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    timeslot                                    TimeSlot,
    midambleShiftandBurstType                   MidambleShiftAndBurstType,
    tdd-PhysicalChannelOffset                   TDD-PhysicalChannelOffset,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    s-CCPCH-Power                               DL-Power,
    iE-Extensions                               ProtocolExtensionContainer { { Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-tFCI-Presence                       CRITICALITY notify  EXTENSION TFCI-Presence     PRESENCE optional},
```

```
    ...
}

FACH-ParametersList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstTDD }}

FACH-ParametersListIEs-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-SetupRqstTDD   CRITICALITY reject    TYPE FACH-ParametersListIE-CTCH-SetupRqstTDD  PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstTDD

FACH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    fACH-CCTrCH-ID                          CCTrCH-ID,
    dl-TransportFormatSet                   TransportFormatSet,
    toAWS                                   ToAWS,
    toAWE                                   ToAWE,
    iE-Extensions                           ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-maxFACH-Power-LCR-CTCH-SetupRqstTDD  CRITICALITY reject  EXTENSION DL-Power                          PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID    id-bindingID                            CRITICALITY ignore  EXTENSION BindingID                       PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID    id-transportlayeraddress                CRITICALITY ignore  EXTENSION TransportLayerAddress           PRESENCE optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

PCH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstTDD }}

PCH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-SetupRqstTDD   CRITICALITY reject   TYPE PCH-ParametersItem-CTCH-SetupRqstTDD   PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    pCH-CCTrCH-ID                           CCTrCH-ID,
    dl-TransportFormatSet                   TransportFormatSet, -- For the DL.
    toAWS                                   ToAWS,
    toAWE                                   ToAWE,
    pICH-Parameters                         PICH-Parameters-CTCH-SetupRqstTDD,
    iE-Extensions                           ProtocolExtensionContainer  { { PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-PCH-Power-LCR-CTCH-SetupRqstTDD          CRITICALITY reject  EXTENSION DL-Power                    PRESENCE optional }|
    { ID    id-bindingID                                CRITICALITY ignore  EXTENSION BindingID                   PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID    id-transportlayeraddress                    CRITICALITY ignore  EXTENSION TransportLayerAddress       PRESENCE optional },
    -- Shall be ignored if bearer establishment with ALCAP.
```

```
    ...
}

PICH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PICH-ParametersIE-CTCH-SetupRqstTDD }}

PICH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-ParametersItem-CTCH-SetupRqstTDD   CRITICALITY reject  TYPE PICH-ParametersItem-CTCH-SetupRqstTDD  PRESENCE optional }|
    { ID id-PICH-LCR-Parameters-CTCH-SetupRqstTDD   CRITICALITY reject  TYPE PICH-LCR-Parameters-CTCH-SetupRqstTDD  PRESENCE optional }
}

PICH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    timeSlot                                TimeSlot,
    midambleshiftAndBurstType               MidambleShiftAndBurstType,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    pagingIndicatorLength                   PagingIndicatorLength,
    pICH-Power                              PICH-Power,
    iE-Extensions                           ProtocolExtensionContainer  { { PICH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PICH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    pagingIndicatorLength                   PagingIndicatorLength,
    pICH-Power                              PICH-Power,
    second-TDD-ChannelisationCodeLCR        TDD-ChannelisationCodeLCR,
    iE-Extensions                           ProtocolExtensionContainer  { { PICH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

PICH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ ID    id-Tstd-indicator           CRITICALITY reject      EXTENSION   TSTD-Indicator      PRESENCE                optional },
    -- Applicable to 1.28 Mcps TDD only
    ...
}

Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHLCRs)) OF Secondary-CCPCH-LCR-parameterItem-CTCH-
SetupRqstTDD

Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
```

```
    tdd-ChannelisationCodeLCR                   TDD-ChannelisationCodeLCR,
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    tdd-PhysicalChannelOffset                   TDD-PhysicalChannelOffset,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    s-CCPCH-Power                               DL-Power,
    s-CCPCH-TimeSlotFormat-LCR                  TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                               ProtocolExtensionContainer { { Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    notificationIndicatorLength             NotificationIndicatorLength,
    mICH-Power                              PICH-Power,
    mICH-TDDOption-Specific-Parameters      MICH-TDDOption-Specific-Parameters-CTCH-SetupRqstTDD,
    iE-Extensions                           ProtocolExtensionContainer  { { MICH-Parameters-CTCH-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

MICH-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-TDDOption-Specific-Parameters-CTCH-SetupRqstTDD ::= CHOICE {
    hCR-TDD                                 MICH-HCR-Parameters-CTCH-SetupRqstTDD,
    lCR-TDD                                 MICH-LCR-Parameters-CTCH-SetupRqstTDD,
    ...
}

MICH-HCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    timeSlot                                TimeSlot,
    midambleshiftAndBurstType               MidambleShiftAndBurstType,
    iE-Extensions                           ProtocolExtensionContainer { { MICH-HCR-Parameters-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

MICH-HCR-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    timeSlotLCR                             TimeSlotLCR,
```

```
    midambleShiftLCR                        MidambleShiftLCR,
    second-TDD-ChannelisationCodeLCR        TDD-ChannelisationCodeLCR,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { MICH-LCR-Parameters-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

MICH-LCR-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-parameterExtendedList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsinExt)) OF Secondary-CCPCH-parameterItem-CTCH-
SetupRqstTDD
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be established.

Secondary-CCPCH-LCR-parameterExtendedList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsLCRinExt)) OF Secondary-CCPCH-LCR-parameterItem-
CTCH-SetupRqstTDD
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHLCRs SCCPCHs are to be established.

PRACH-CTCH-SetupRqstTDD ::= SEQUENCE {
    pRACH-Parameters-CTCH-SetupRqstTDD          PRACH-Parameters-CTCH-SetupRqstTDD,
    iE-Extensions                               ProtocolExtensionContainer  { { PRACH-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

PRACH-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD  CRITICALITY reject  EXTENSION FPACH-LCR-Parameters-CTCH-SetupRqstTDD  PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    ...
}

PRACH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PRACH-ParametersIE-CTCH-SetupRqstTDD }}

PRACH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-ParametersItem-CTCH-SetupRqstTDD      CRITICALITY reject  TYPE PRACH-ParametersItem-CTCH-SetupRqstTDD     PRESENCE optional }|
    { ID id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD  CRITICALITY reject  TYPE PRACH-LCR-ParametersList-CTCH-SetupRqstTDD PRESENCE optional }
}


PRACH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tFCS                                        TFCS,
    timeslot                                    TimeSlot,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    maxPRACH-MidambleShifts                     MaxPRACH-MidambleShifts,
    pRACH-Midamble                              PRACH-Midamble,
    rACH                                        RACH-Parameter-CTCH-SetupRqstTDD,
    iE-Extensions                               ProtocolExtensionContainer  { { PRACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PRACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RACH-Parameter-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ RACH-ParameterIE-CTCH-SetupRqstTDD }}

RACH-ParameterIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-ParameterItem-CTCH-SetupRqstTDD   CRITICALITY reject   TYPE RACH-ParameterItem-CTCH-SetupRqstTDD   PRESENCE mandatory }
}

RACH-ParameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonTransportChannelID                    CommonTransportChannelID,
    uL-TransportFormatSet                       TransportFormatSet, -- For the UL
    iE-Extensions                               ProtocolExtensionContainer  { { RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                   CRITICALITY ignore  EXTENSION BindingID                 PRESENCE optional }|
        -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress       CRITICALITY ignore  EXTENSION TransportLayerAddress     PRESENCE optional },
        -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

PRACH-LCR-ParametersList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfPRACHLCRs)) OF PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD

PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tFCS                                        TFCS,
    timeslotLCR                                 TimeSlotLCR,
    tdd-ChannelisationCodeLCR                   TDD-ChannelisationCodeLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    rACH                                        RACH-Parameter-CTCH-SetupRqstTDD,
    iE-Extensions                               ProtocolExtensionContainer  { { PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FPACH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tdd-ChannelisationCodeLCR                   TDD-ChannelisationCodeLCR,
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    fPACH-Power                                 FPACH-Power,
    iE-Extensions                               ProtocolExtensionContainer  { { FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
```

```
--
-- COMMON TRANSPORT CHANNEL SETUP RESPONSE
--
-- **************************************************************

CommonTransportChannelSetupResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelSetupResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelSetupResponse-Extensions}}    OPTIONAL,
    ...
}

CommonTransportChannelSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersList-CTCH-SetupRsp   CRITICALITY ignore  TYPE FACH-CommonTransportChannel-InformationResponse    PRESENCE optional }|
    { ID id-PCH-Parameters-CTCH-SetupRsp        CRITICALITY ignore  TYPE CommonTransportChannel-InformationResponse         PRESENCE optional }|
    { ID id-RACH-Parameters-CTCH-SetupRsp       CRITICALITY ignore  TYPE CommonTransportChannel-InformationResponse         PRESENCE optional }|
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics                             PRESENCE optional },
    ...
}

CommonTransportChannelSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-CommonTransportChannel-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF CommonTransportChannel-InformationResponse

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP FAILURE
--
-- **************************************************************

CommonTransportChannelSetupFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelSetupFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelSetupFailure-Extensions}}     OPTIONAL,
    ...
}

CommonTransportChannelSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                    CRITICALITY ignore      TYPE    Cause                                   PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics   CRITICALITY ignore      TYPE    CriticalityDiagnostics                  PRESENCE optional    },
    ...
}

CommonTransportChannelSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST FDD
--
-- **************************************************************

CommonTransportChannelReconfigurationRequestFDD ::= SEQUENCE {
```

```
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelReconfigurationRequestFDD-Extensions}}   OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                    CRITICALITY reject  TYPE C-ID                                       PRESENCE mandatory
}|
    { ID id-ConfigurationGenerationID               CRITICALITY reject  TYPE ConfigurationGenerationID                  PRESENCE mandatory
}|
    { ID id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE CommonPhysicalChannelType-CTCH-ReconfRqstFDD PRESENCE
mandatory },
    ...
}

CommonTransportChannelReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonPhysicalChannelType-CTCH-ReconfRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCHList-CTCH-ReconfRqstFDD,
    pRACH-parameters                PRACHList-CTCH-ReconfRqstFDD,
    notUsed-cPCH-parameters         NULL,
    ...
}

Secondary-CCPCHList-CTCH-ReconfRqstFDD ::= SEQUENCE {
    fACH-ParametersList-CTCH-ReconfRqstFDD      FACH-ParametersList-CTCH-ReconfRqstFDD  OPTIONAL,
    pCH-Parameters-CTCH-ReconfRqstFDD           PCH-Parameters-CTCH-ReconfRqstFDD       OPTIONAL,
    pICH-Parameters-CTCH-ReconfRqstFDD          PICH-Parameters-CTCH-ReconfRqstFDD      OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MICH-Parameters-CTCH-ReconfRqstFDD      CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-ReconfRqstFDD        PRESENCE optional },
    ...
}

FACH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-ReconfRqstFDD }}

FACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE FACH-ParametersListIE-CTCH-ReconfRqstFDD   PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxFACHCell)) OF FACH-ParametersItem-CTCH-ReconfRqstFDD

FACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    maxFACH-Power                           DL-Power        OPTIONAL,
    toAWS                                   ToAWS           OPTIONAL,
    toAWE                                   ToAWE           OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }   OPTIONAL,
    ...
```

```
}

FACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCH-Parameters-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-ReconfRqstFDD }}

PCH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-ReconfRqstFDD   CRITICALITY reject  TYPE PCH-ParametersItem-CTCH-ReconfRqstFDD  PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID               CommonTransportChannelID,
    pCH-Power                              DL-Power        OPTIONAL,
    toAWS                                  ToAWS           OPTIONAL,
    toAWE                                  ToAWE           OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer  { { PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }       OPTIONAL,
    ...
}

PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-Parameters-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PICH-ParametersIE-CTCH-ReconfRqstFDD }}

PICH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-ParametersItem-CTCH-ReconfRqstFDD  CRITICALITY reject  TYPE PICH-ParametersItem-CTCH-ReconfRqstFDD   PRESENCE mandatory }
}

PICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID            CommonPhysicalChannelID,
    pICH-Power                         PICH-Power      OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer  { { PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-Parameters-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID            CommonPhysicalChannelID,
    mICH-Power                         PICH-Power                                                                  OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer  { { MICH-Parameters-CTCH-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

MICH-Parameters-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACHList-CTCH-ReconfRqstFDD ::= SEQUENCE {
```

```
    pRACH-ParametersList-CTCH-ReconfRqstFDD     PRACH-ParametersList-CTCH-ReconfRqstFDD OPTIONAL,
    aICH-ParametersList-CTCH-ReconfRqstFDD      AICH-ParametersList-CTCH-ReconfRqstFDD  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { PRACH-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PRACH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PRACH-ParametersListIEs-CTCH-ReconfRqstFDD }}

PRACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD   CRITICALITY reject  TYPE PRACH-ParametersListIE-CTCH-ReconfRqstFDD  PRESENCE mandatory }
}

PRACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF PRACH-ParametersItem-CTCH-ReconfRqstFDD

PRACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    preambleSignatures                      PreambleSignatures                                                  OPTIONAL,
    allowedSlotFormatInformation            AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD                 OPTIONAL,
    rACH-SubChannelNumbers                  RACH-SubChannelNumbers                                              OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }  OPTIONAL,
    ...
}

PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
ReconfRqstFDD

AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    rACH-SlotFormat                         RACH-SlotFormat,
    iE-Extensions                           ProtocolExtensionContainer  { { AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AICH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ AICH-ParametersListIEs-CTCH-ReconfRqstFDD }}

AICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-AICH-ParametersListIE-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE AICH-ParametersListIE-CTCH-ReconfRqstFDD   PRESENCE mandatory }
}

AICH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF AICH-ParametersItem-CTCH-ReconfRqstFDD

AICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
```

```
    commonPhysicalChannelID             CommonPhysicalChannelID,
    aICH-Power                          AICH-Power      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST TDD
--
-- **************************************************************

CommonTransportChannelReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelReconfigurationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelReconfigurationRequestTDD-Extensions}}   OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                    CRITICALITY reject  TYPE C-ID                                       PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID               CRITICALITY reject  TYPE ConfigurationGenerationID                  PRESENCE mandatory }|
    { ID id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD   CRITICALITY reject  TYPE Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD   PRESENCE
optional    }|
    { ID id-PICH-Parameters-CTCH-ReconfRqstTDD      CRITICALITY reject  TYPE PICH-Parameters-CTCH-ReconfRqstTDD      PRESENCE optional }|
    { ID id-FACH-ParametersList-CTCH-ReconfRqstTDD  CRITICALITY reject  TYPE FACH-ParametersList-CTCH-ReconfRqstTDD  PRESENCE optional }|
    { ID id-PCH-Parameters-CTCH-ReconfRqstTDD       CRITICALITY reject  TYPE PCH-Parameters-CTCH-ReconfRqstTDD       PRESENCE optional },
    ...
}

CommonTransportChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD     CRITICALITY reject  EXTENSION FPACH-LCR-Parameters-CTCH-ReconfRqstTDD  PRESENCE optional }|
    -- Mandatory For 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-MICH-Parameters-CTCH-ReconfRqstTDD          CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-ReconfRqstTDD       PRESENCE optional },
    ...
}

Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    secondaryCCPCHList              Secondary-CCPCHList-CTCH-ReconfRqstTDD          OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD           CRITICALITY reject  EXTENSION Secondary-CCPCH-parameterExtendedList-CTCH-
ReconfRqstTDD       PRESENCE optional   }|
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.
    { ID id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD        CRITICALITY reject  EXTENSION Secondary-CCPCH-LCR-parameterExtendedList-
CTCH-ReconfRqstTDD  PRESENCE optional   },
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.
```

```
    ...
}

Secondary-CCPCHList-CTCH-ReconfRqstTDD ::= ProtocolIE-Single-Container {{ Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD }}

Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD    CRITICALITY reject  TYPE Secondary-CCPCHListIE-CTCH-ReconfRqstTDD   PRESENCE mandatory }
}

Secondary-CCPCHListIE-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD

Secondary-CCPCHItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    sCCPCH-Power                        DL-Power        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-Parameters-CTCH-ReconfRqstTDD   ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    pICH-Power                          PICH-Power      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (0..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-ReconfRqstTDD

FACH-ParametersItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    toAWS                           ToAWS           OPTIONAL,
    toAWE                           ToAWE           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD         CRITICALITY reject      EXTENSION   DL-Power              PRESENCE    optional },
    --  Applicable to 1.28Mcps TDD only
    ...
}

PCH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    toAWS                           ToAWS           OPTIONAL,
    toAWE                           ToAWE           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }       OPTIONAL,
```

```
    ...
}

PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PCH-Power-LCR-CTCH-ReconfRqstTDD       CRITICALITY reject      EXTENSION DL-Power                      PRESENCE optional },
    ... -- Applicable to 1.28Mcps TDD only
}

FPACH-LCR-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelId         CommonPhysicalChannelID,
    fPACHPower                      FPACH-Power     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { FPACH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

FPACH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
MICH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    mICH-Power                          PICH-Power                                                              OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { MICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

MICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-parameterExtendedList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsinExt)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.

Secondary-CCPCH-LCR-parameterExtendedList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsLCRinExt)) OF Secondary-CCPCHItem-CTCH-
ReconfRqstTDD
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE
--
-- **************************************************************

CommonTransportChannelReconfigurationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelReconfigurationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelReconfigurationResponse-Extensions}}     OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics            PRESENCE optional},
    ...
}

CommonTransportChannelReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************************

CommonTransportChannelReconfigurationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelReconfigurationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelReconfigurationFailure-Extensions}}          OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                        CRITICALITY ignore          TYPE    Cause                               PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics       CRITICALITY ignore          TYPE    CriticalityDiagnostics              PRESENCE optional },
    ...
}

CommonTransportChannelReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL DELETION REQUEST
--
-- **************************************************************

CommonTransportChannelDeletionRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container    {{CommonTransportChannelDeletionRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{CommonTransportChannelDeletionRequest-Extensions}}         OPTIONAL,
    ...
}

CommonTransportChannelDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                             CRITICALITY reject      TYPE    C-ID                                PRESENCE mandatory}|
    { ID    id-CommonPhysicalChannelID          CRITICALITY reject      TYPE    CommonPhysicalChannelID             PRESENCE mandatory}|
    { ID    id-ConfigurationGenerationID        CRITICALITY reject      TYPE    ConfigurationGenerationID           PRESENCE mandatory},
    ...
}

CommonTransportChannelDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL DELETION RESPONSE
--
-- **************************************************************
```

```
CommonTransportChannelDeletionResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonTransportChannelDeletionResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelDeletionResponse-Extensions}}         OPTIONAL,
    ...
}

CommonTransportChannelDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore      TYPE    CriticalityDiagnostics              PRESENCE optional},
    ...
}

CommonTransportChannelDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- BLOCK RESOURCE REQUEST
--
-- **************************************************************

BlockResourceRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container       {{BlockResourceRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{BlockResourceRequest-Extensions}}                  OPTIONAL,
    ...
}

BlockResourceRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                             CRITICALITY reject      TYPE    C-ID                                    PRESENCE mandatory   }|
    { ID    id-BlockingPriorityIndicator        CRITICALITY reject      TYPE    BlockingPriorityIndicator               PRESENCE mandatory   }|
    { ID    id-ShutdownTimer                    CRITICALITY reject      TYPE    ShutdownTimer                           PRESENCE conditional },
    -- The IE shall be present if the Blocking Priority Indicator IE indicates "Normal Priority"--
    ...
}

BlockResourceRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- BLOCK RESOURCE RESPONSE
--
-- **************************************************************

BlockResourceResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container       {{BlockResourceResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{BlockResourceResponse-Extensions}}                 OPTIONAL,
    ...
}

BlockResourceResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore      TYPE    CriticalityDiagnostics              PRESENCE optional},
    ...
```

```
}

BlockResourceResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- BLOCK RESOURCE FAILURE
--
-- **************************************************************

BlockResourceFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container       {{BlockResourceFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{BlockResourceFailure-Extensions}}     OPTIONAL,
    ...
}

BlockResourceFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                        CRITICALITY     ignore      TYPE    Cause                                   PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore      TYPE    CriticalityDiagnostics                PRESENCE optional },
    ...
}

BlockResourceFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UNBLOCK RESOURCE INDICATION
--
-- **************************************************************

UnblockResourceIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{UnblockResourceIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{UnblockResourceIndication-Extensions}}    OPTIONAL,
    ...
}

UnblockResourceIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID         CRITICALITY     ignore      TYPE    C-ID        PRESENCE    mandatory},
    ...
}

UnblockResourceIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- AUDIT REQUIRED INDICATION
--
-- **************************************************************
```

```
AuditRequiredIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{AuditRequiredIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{AuditRequiredIndication-Extensions}}                    OPTIONAL,
    ...
}

AuditRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
    ...
}

AuditRequiredIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- AUDIT REQUEST
--
-- **************************************************************

AuditRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container    {{AuditRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{AuditRequest-Extensions}}     OPTIONAL,
    ...
}

AuditRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Start-Of-Audit-Sequence-Indicator        CRITICALITY     reject  TYPE Start-Of-Audit-Sequence-Indicator   PRESENCE  mandatory },
    ...
}

AuditRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- AUDIT RESPONSE
--
-- **************************************************************

AuditResponse ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container    {{AuditResponse-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{AuditResponse-Extensions}}        OPTIONAL,
    ...
}

AuditResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-End-Of-Audit-Sequence-Indicator             CRITICALITY ignore  TYPE End-Of-Audit-Sequence-Indicator            PRESENCE mandatory }|
    { ID id-Cell-InformationList-AuditRsp               CRITICALITY ignore  TYPE Cell-InformationList-AuditRsp              PRESENCE optional }|
    { ID id-CCP-InformationList-AuditRsp                CRITICALITY ignore  TYPE CCP-InformationList-AuditRsp               PRESENCE optional }|
    -- CCP (Communication Control Port) --
    { ID id-Local-Cell-InformationList-AuditRsp         CRITICALITY ignore  TYPE Local-Cell-InformationList-AuditRsp        PRESENCE optional }|
```

```
    { ID id-Local-Cell-Group-InformationList-AuditRsp   CRITICALITY ignore  TYPE Local-Cell-Group-InformationList-AuditRsp  PRESENCE optional }|
    { ID id-CriticalityDiagnostics                      CRITICALITY ignore  TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
}

AuditResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Power-Local-Cell-Group-InformationList-AuditRsp CRITICALITY ignore  EXTENSION Power-Local-Cell-Group-InformationList-AuditRsp
    PRESENCE optional },
    ...
}

Cell-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ Cell-InformationItemIE-AuditRsp}}

Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID    id-Cell-InformationItem-AuditRsp        CRITICALITY ignore      TYPE Cell-InformationItem-AuditRsp           PRESENCE optional }
}

Cell-InformationItem-AuditRsp ::= SEQUENCE {
    c-ID                                C-ID,
    configurationGenerationID           ConfigurationGenerationID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    local-Cell-ID                       Local-Cell-ID,
    primary-SCH-Information             P-SCH-Information-AuditRsp                  OPTIONAL,
    secondary-SCH-Information           S-SCH-Information-AuditRsp                  OPTIONAL,
    primary-CPICH-Information           P-CPICH-Information-AuditRsp                OPTIONAL,
    secondary-CPICH-InformationList     S-CPICH-InformationList-AuditRsp            OPTIONAL,
    primary-CCPCH-Information           P-CCPCH-Information-AuditRsp                OPTIONAL,
    bCH-Information                     BCH-Information-AuditRsp                    OPTIONAL,
    secondary-CCPCH-InformationList     S-CCPCH-InformationList-AuditRsp            OPTIONAL,
    pCH-Information                     PCH-Information-AuditRsp                    OPTIONAL,
    pICH-Information                    PICH-Information-AuditRsp                   OPTIONAL,
    fACH-InformationList                FACH-InformationList-AuditRsp               OPTIONAL,
    pRACH-InformationList               PRACH-InformationList-AuditRsp              OPTIONAL,
    rACH-InformationList                RACH-InformationList-AuditRsp               OPTIONAL,
    aICH-InformationList                AICH-InformationList-AuditRsp               OPTIONAL,
    notUsed-1-pCPCH-InformationList     NULL                                        OPTIONAL,
    notUsed-2-cPCH-InformationList      NULL                                        OPTIONAL,
    notUsed-3-aP-AICH-InformationList   NULL                                        OPTIONAL,
    notUsed-4-cDCA-ICH-InformationList  NULL                                        OPTIONAL,
    sCH-Information                     SCH-Information-AuditRsp                    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { Cell-InformationItem-AuditRsp-ExtIEs} }   OPTIONAL,
    ...
}

Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-InformationList-AuditRsp      CRITICALITY ignore  EXTENSION FPACH-LCR-InformationList-AuditRsp        PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-DwPCH-LCR-InformationList-AuditRsp      CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-HSDSCH-Resources-Information-AuditRsp   CRITICALITY ignore  EXTENSION HS-DSCH-Resources-Information-AuditRsp    PRESENCE optional }|
    { ID id-MICH-Information-AuditRsp               CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information PRESENCE optional }|
    { ID id-S-CCPCH-InformationListExt-AuditRsp     CRITICALITY ignore  EXTENSION S-CCPCH-InformationListExt-AuditRsp       PRESENCE optional }|
    -- Applicable to 3.84Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the cell.
```

```
    { ID id-S-CCPCH-LCR-InformationListExt-AuditRsp CRITICALITY ignore  EXTENSION S-CCPCH-LCR-InformationListExt-AuditRsp   PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the cell.
    { ID id-E-DCH-Resources-Information-AuditRsp    CRITICALITY ignore  EXTENSION E-DCH-Resources-Information-AuditRsp      PRESENCE optional },
    ...
}

P-SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-SCH-InformationIE-AuditRsp }}

P-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-SCH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                 PRESENCE mandatory }
}

S-SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ S-SCH-InformationIE-AuditRsp }}

S-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-SCH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                 PRESENCE mandatory }
}

P-CPICH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-CPICH-InformationIE-AuditRsp }}

P-CPICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-CPICH-Information CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                 PRESENCE mandatory }
}

S-CPICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ S-CPICH-InformationItemIE-AuditRsp }}

S-CPICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CPICH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

P-CCPCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-CCPCH-InformationIE-AuditRsp }}

P-CCPCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-CCPCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

BCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ BCH-InformationIE-AuditRsp }}

BCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-BCH-Information   CRITICALITY ignore    TYPE Common-TransportChannel-Status-Information                 PRESENCE mandatory }
}

S-CCPCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-AuditRsp }}

S-CCPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}
PCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ PCH-InformationIE-AuditRsp }}

PCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-Information   CRITICALITY ignore    TYPE Common-TransportChannel-Status-Information                 PRESENCE mandatory }
}

PICH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ PICH-InformationIE-AuditRsp }}
```

```
PICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-Information   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information                    PRESENCE mandatory }
}

FACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Single-Container {{ FACH-InformationItemIE-AuditRsp }}

FACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-Information   CRITICALITY ignore   TYPE Common-TransportChannel-Status-Information                  PRESENCE mandatory }
}

PRACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-InformationItemIE-AuditRsp }}

PRACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                   PRESENCE mandatory }
}

RACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxRACHCell)) OF ProtocolIE-Single-Container {{ RACH-InformationItemIE-AuditRsp }}

RACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-Information   CRITICALITY ignore   TYPE Common-TransportChannel-Status-Information                  PRESENCE mandatory }
}

AICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ AICH-InformationItemIE-AuditRsp }}

AICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-AICH-Information   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information                   PRESENCE mandatory }
}

SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ SCH-InformationIE-AuditRsp }}

SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-SCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                   PRESENCE mandatory }
}

CCP-InformationList-AuditRsp ::=SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Single-Container {{ CCP-InformationItemIE-AuditRsp }}

CCP-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    {ID id-CCP-InformationItem-AuditRsp         CRITICALITY     ignore          TYPE    CCP-InformationItem-AuditRsp        PRESENCE mandatory}
}

CCP-InformationItem-AuditRsp ::= SEQUENCE {
    communicationControlPortID          CommunicationControlPortID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  {{ CCP-InformationItem-AuditRsp-ExtIEs }}         OPTIONAL,
    ...
}

CCP-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FPACH-LCR-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFPACHCell)) OF ProtocolIE-Single-Container {{ FPACH-LCR-InformationItemIE-AuditRsp }}
```

```
FPACH-LCR-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-FPACH-LCR-Information-AuditRsp   CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information        PRESENCE mandatory }
}

HS-DSCH-Resources-Information-AuditRsp ::= SEQUENCE {
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  {{ HS-DSCH-Resources-Information-AuditRsp-ExtIEs }}     OPTIONAL,
    ...
}

HS-DSCH-Resources-Information-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

S-CCPCH-InformationListExt-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExt)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-
AuditRsp }}

S-CCPCH-LCR-InformationListExt-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExtLCR)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-
AuditRsp }}

E-DCH-Resources-Information-AuditRsp ::= SEQUENCE {
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  {{ E-DCH-Resources-Information-AuditRsp-ExtIEs }}    OPTIONAL,
    ...
}

E-DCH-Resources-Information-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Local-Cell-InformationList-AuditRsp  ::=SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-InformationItemIE-
AuditRsp }}

Local-Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem-AuditRsp     CRITICALITY ignore  TYPE Local-Cell-InformationItem-AuditRsp    PRESENCE mandatory}
}

Local-Cell-InformationItem-AuditRsp ::= SEQUENCE {
    local-Cell-ID                               Local-Cell-ID,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit,
    ul-capacityCredit                           UL-CapacityCredit                                                   OPTIONAL,
    commonChannelsCapacityConsumptionLaw        CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw     DedicatedChannelsCapacityConsumptionLaw,
    maximumDL-PowerCapability                   MaximumDL-PowerCapability                                           OPTIONAL,
    minSpreadingFactor                          MinSpreadingFactor                                                  OPTIONAL,
    minimumDL-PowerCapability                   MinimumDL-PowerCapability                                           OPTIONAL,
    local-Cell-Group-ID                         Local-Cell-ID                                                       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer  {{ Local-Cell-InformationItem-AuditRsp-ExtIEs}}    OPTIONAL,
    ...
}
```

```
Local-Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-ReferenceClockAvailability       CRITICALITY ignore          EXTENSION ReferenceClockAvailability         PRESENCE optional }|
    { ID    id-Power-Local-Cell-Group-ID        CRITICALITY ignore          EXTENSION Local-Cell-ID                      PRESENCE optional }|
    { ID    id-HSDPA-Capability                 CRITICALITY ignore          EXTENSION HSDPA-Capability                   PRESENCE optional }|
    { ID    id-E-DCH-Capability                 CRITICALITY ignore          EXTENSION E-DCH-Capability                   PRESENCE optional }|
    { ID    id-E-DCH-TTI2ms-Capability          CRITICALITY ignore          EXTENSION E-DCH-TTI2ms-Capability            PRESENCE conditional }| --
The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-SF-Capability              CRITICALITY ignore          EXTENSION E-DCH-SF-Capability                PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-HARQ-Combining-Capability              CRITICALITY ignore          EXTENSION E-DCH-HARQ-Combining-Capability       PRESENCE
    conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-CapacityConsumptionLaw     CRITICALITY ignore          EXTENSION E-DCHCapacityConsumptionLaw   PRESENCE optional }|
    { ID    id-F-DPCH-Capability                CRITICALITY ignore          EXTENSION F-DPCH-Capability                  PRESENCE optional },
    ...
}

Local-Cell-Group-InformationList-AuditRsp    ::= SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE-AuditRsp }}

Local-Cell-Group-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-Group-InformationItem-AuditRsp   CRITICALITY ignore  TYPE Local-Cell-Group-InformationItem-AuditRsp  PRESENCE mandatory}
}

Local-Cell-Group-InformationItem-AuditRsp ::= SEQUENCE {
    local-Cell-Group-ID                         Local-Cell-ID,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit,
    ul-capacityCredit                           UL-CapacityCredit                       OPTIONAL,
    commonChannelsCapacityConsumptionLaw        CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw     DedicatedChannelsCapacityConsumptionLaw,
    iE-Extensions                               ProtocolExtensionContainer  {{ Local-Cell-Group-InformationItem-AuditRsp-ExtIEs}}    OPTIONAL,
    ...
}

Local-Cell-Group-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-E-DCH-CapacityConsumptionLaw     CRITICALITY ignore          EXTENSION E-DCHCapacityConsumptionLaw   PRESENCE optional },
    ...
}

Power-Local-Cell-Group-InformationList-AuditRsp  ::= SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-Local-Cell-
Group-InformationItemIE-AuditRsp }}

Power-Local-Cell-Group-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID    id-Power-Local-Cell-Group-InformationItem-AuditRsp          CRITICALITY     ignore      TYPE  Power-Local-Cell-Group-InformationItem-
AuditRsp        PRESENCE    mandatory}
}

Power-Local-Cell-Group-InformationItem-AuditRsp ::= SEQUENCE {
    power-Local-Cell-Group-ID                   Local-Cell-ID,
    maximumDL-PowerCapability                   MaximumDL-PowerCapability,
    iE-Extensions                               ProtocolExtensionContainer  {{ Power-Local-Cell-Group-InformationItem-AuditRsp-ExtIEs}}
    OPTIONAL,
    ...
}
```

```
Power-Local-Cell-Group-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- AUDIT FAILURE
--
-- **************************************************************

AuditFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{AuditFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{AuditFailure-Extensions}}         OPTIONAL,
    ...
}

AuditFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                            CRITICALITY     ignore          TYPE    Cause                                   PRESENCE mandatory
    }|
    { ID    id-CriticalityDiagnostics           CRITICALITY     ignore          TYPE    CriticalityDiagnostics          PRESENCE optional },
    ...
}

AuditFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

CommonMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementInitiationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationRequest-Extensions}}             OPTIONAL,
    ...
}

CommonMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                           CRITICALITY reject  TYPE MeasurementID                          PRESENCE mandatory }|
    { ID id-CommonMeasurementObjectType-CM-Rqst     CRITICALITY reject  TYPE CommonMeasurementObjectType-CM-Rqst    PRESENCE mandatory }|
    { ID id-CommonMeasurementType                   CRITICALITY reject  TYPE CommonMeasurementType                  PRESENCE mandatory }|
    { ID id-MeasurementFilterCoefficient            CRITICALITY reject  TYPE MeasurementFilterCoefficient           PRESENCE optional }|
    { ID id-ReportCharacteristics                   CRITICALITY reject  TYPE ReportCharacteristics                  PRESENCE mandatory }|
    { ID id-SFNReportingIndicator                   CRITICALITY reject  TYPE FNReportingIndicator                   PRESENCE mandatory }|
    { ID id-SFN                                     CRITICALITY reject  TYPE SFN                                    PRESENCE optional },
    ...
}

CommonMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-CommonMeasurementAccuracy                        CRITICALITY reject          EXTENSION CommonMeasurementAccuracy       PRESENCE
optional}|
```

```
    { ID    id-MeasurementRecoveryBehavior                  CRITICALITY ignore          EXTENSION MeasurementRecoveryBehavior      PRESENCE optional
    },
    ...
}

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
    cell                            Cell-CM-Rqst,
    rACH                            RACH-CM-Rqst,
    notUsed-cPCH                    NULL,
    ...,
    extension-CommonMeasurementObjectType-CM-Rqst       Extension-CommonMeasurementObjectType-CM-Rqst
}

Extension-CommonMeasurementObjectType-CM-Rqst   ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RqstIE }}

Extension-CommonMeasurementObjectType-CM-RqstIE NBAP-PROTOCOL-IES ::= {
    { ID id-Power-Local-Cell-Group-choice-CM-Rqst   CRITICALITY reject  TYPE PowerLocalCellGroup-CM-Rqst           PRESENCE mandatory }
}

Cell-CM-Rqst ::= SEQUENCE {
    c-ID                            C-ID,
    timeSlot                        TimeSlot    OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-CM-Rqst-ExtIEs} }                  OPTIONAL,
    ...
}

CellItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeSlotLCR-CM-Rqst                     CRITICALITY reject  EXTENSION TimeSlotLCR                           PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    {ID id-NeighbouringCellMeasurementInformation   CRITICALITY ignore  EXTENSION NeighbouringCellMeasurementInformation PRESENCE optional },
    ...
}

RACH-CM-Rqst ::= SEQUENCE {
    c-ID                            C-ID,
    commonTransportChannelID        CommonTransportChannelID,
    iE-Extensions                   ProtocolExtensionContainer  { { RACHItem-CM-Rqst-ExtIEs} }                  OPTIONAL,
    ...
}

RACHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerLocalCellGroup-CM-Rqst ::= SEQUENCE {
    powerLocalCellGroupID           Local-Cell-ID,
    iE-Extensions                   ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rqst-ExtIEs }}          OPTIONAL,
    ...
}

PowerLocalCellGroup-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION RESPONSE
--
-- **************************************************************

CommonMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementInitiationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationResponse-Extensions}}            OPTIONAL,
    ...
}

CommonMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                           CRITICALITY ignore      TYPE MeasurementID                          PRESENCE mandatory   }|
    { ID id-CommonMeasurementObjectType-CM-Rsp      CRITICALITY ignore      TYPE CommonMeasurementObjectType-CM-Rsp     PRESENCE optional }|
    { ID    id-SFN                                  CRITICALITY ignore      TYPE SFN                                    PRESENCE optional }|
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore      TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

CommonMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-CommonMeasurementAccuracy        CRITICALITY ignore      EXTENSION CommonMeasurementAccuracy             PRESENCE optional}|
     { ID    id-MeasurementRecoverySupportIndicator      CRITICALITY ignore      EXTENSION   MeasurementRecoverySupportIndicator   PRESENCE optional
    },
    ...
}

CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
    cell                        Cell-CM-Rsp,
    rACH                        RACH-CM-Rsp,
    notUsed-cPCH                NULL,
    ...,
    extension-CommonMeasurementObjectType-CM-Rsp        Extension-CommonMeasurementObjectType-CM-Rsp
}

Extension-CommonMeasurementObjectType-CM-Rsp    ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RspIE }}

Extension-CommonMeasurementObjectType-CM-RspIE NBAP-PROTOCOL-IES ::= {
    { ID id-Power-Local-Cell-Group-choice-CM-Rsp    CRITICALITY ignore      TYPE PowerLocalCellGroup-CM-Rsp         PRESENCE mandatory }
}

Cell-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue          CommonMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-CM-Rsp-ExtIEs} }                       OPTIONAL,
    ...
}

CellItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue          CommonMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer  { { RACHItem-CM-Rsp-ExtIEs} }                       OPTIONAL,
```

```
    ...
}

RACHItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerLocalCellGroup-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue          CommonMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rsp-ExtIEs}}                OPTIONAL,
    ...
}

PowerLocalCellGroup-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

CommonMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementInitiationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationFailure-Extensions}}            OPTIONAL,
    ...
}

CommonMeasurementInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID                CRITICALITY     ignore          TYPE    MeasurementID                   PRESENCE mandatory   }|
    { ID    id-Cause                        CRITICALITY     ignore          TYPE    Cause                           PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics          PRESENCE optional },
    ...
}

CommonMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT REPORT
--
-- **************************************************************

CommonMeasurementReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementReport-Extensions}}                  OPTIONAL,
    ...
}

CommonMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                           CRITICALITY ignore      TYPE MeasurementID                      PRESENCE mandatory   }|
```

```
    { ID id-CommonMeasurementObjectType-CM-Rprt     CRITICALITY ignore      TYPE CommonMeasurementObjectType-CM-Rprt     PRESENCE mandatory   }|
    { ID id-SFN                                     CRITICALITY ignore      TYPE SFN                                     PRESENCE optional },
    ...
}

CommonMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MeasurementRecoveryReportingIndicator        CRITICALITY ignore      EXTENSION   MeasurementRecoveryReportingIndicator   PRESENCE
optional },
    ...
}

CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
    cell                            Cell-CM-Rprt,
    rACH                            RACH-CM-Rprt,
    notUsed-cPCH                    NULL,
    ...,
    extension-CommonMeasurementObjectType-CM-Rprt       Extension-CommonMeasurementObjectType-CM-Rprt
}

Extension-CommonMeasurementObjectType-CM-Rprt   ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RprtIE }}

Extension-CommonMeasurementObjectType-CM-RprtIE NBAP-PROTOCOL-IES ::= {
    { ID id-Power-Local-Cell-Group-choice-CM-Rprt   CRITICALITY ignore      TYPE PowerLocalCellGroup-CM-Rprt        PRESENCE mandatory }
}

Cell-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation   CommonMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer  {{ CellItem-CM-Rprt-ExtIEs }}                   OPTIONAL,
    ...

}

CellItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


RACH-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation   CommonMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer {{ RACHItem-CM-Rprt-ExtIEs }}                      OPTIONAL,
    ...
}

RACHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerLocalCellGroup-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation   CommonMeasurementValueInformation,
    iE-Extensions                       ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rprt-ExtIEs}}       OPTIONAL,
    ...
}

PowerLocalCellGroup-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

CommonMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementTerminationRequest-Extensions}}            OPTIONAL,
    ...
}

CommonMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID            CRITICALITY     ignore              TYPE    MeasurementID                       PRESENCE mandatory},
    ...
}

CommonMeasurementTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT FAILURE INDICATION
--
-- **************************************************************

CommonMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementFailureIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{CommonMeasurementFailureIndication-Extensions}}               OPTIONAL,
    ...
}

CommonMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID            CRITICALITY ignore          TYPE    MeasurementID                       PRESENCE mandatory   }|
    { ID    id-Cause                    CRITICALITY ignore          TYPE    Cause                               PRESENCE mandatory   },
    ...
}

CommonMeasurementFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SETUP REQUEST FDD
--
-- **************************************************************

CellSetupRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSetupRequestFDD-IEs}},
```

```
    protocolExtensions      ProtocolExtensionContainer  {{CellSetupRequestFDD-Extensions}}      OPTIONAL,
    ...
}

CellSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-ID                                   CRITICALITY reject  TYPE Local-Cell-ID                          PRESENCE mandatory
}|
    { ID id-C-ID                                            CRITICALITY reject  TYPE C-ID                                  PRESENCE mandatory
}|
    { ID id-ConfigurationGenerationID                       CRITICALITY reject  TYPE ConfigurationGenerationID             PRESENCE mandatory
}|
    { ID id-T-Cell                                          CRITICALITY reject  TYPE T-Cell                                PRESENCE mandatory
}|
    { ID id-UARFCNforNu                                     CRITICALITY reject  TYPE UARFCN                                PRESENCE mandatory
}|
    { ID id-UARFCNforNd                                     CRITICALITY reject  TYPE UARFCN                                PRESENCE mandatory
}|
    { ID id-MaximumTransmissionPower                        CRITICALITY reject  TYPE MaximumTransmissionPower              PRESENCE mandatory
}|
    { ID id-Closed-Loop-Timing-Adjustment-Mode              CRITICALITY reject  TYPE Closedlooptimingadjustmentmode        PRESENCE optional }|
    { ID id-PrimaryScramblingCode                           CRITICALITY reject  TYPE PrimaryScramblingCode                 PRESENCE mandatory
}|
    { ID id-Synchronisation-Configuration-Cell-SetupRqst    CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-SetupRqst      PRESENCE
    mandatory }|
    { ID id-DL-TPC-Pattern01Count                           CRITICALITY reject  TYPE DL-TPC-Pattern01Count                 PRESENCE mandatory
}|
    { ID id-PrimarySCH-Information-Cell-SetupRqstFDD        CRITICALITY reject  TYPE PrimarySCH-Information-Cell-SetupRqstFDD          PRESENCE
    mandatory }|
    { ID id-SecondarySCH-Information-Cell-SetupRqstFDD      CRITICALITY reject  TYPE SecondarySCH-Information-Cell-SetupRqstFDD        PRESENCE
mandatory }|
    { ID id-PrimaryCPICH-Information-Cell-SetupRqstFDD      CRITICALITY reject  TYPE PrimaryCPICH-Information-Cell-SetupRqstFDD        PRESENCE
    mandatory }|
    { ID id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD    CRITICALITY reject  TYPE SecondaryCPICH-InformationList-Cell-SetupRqstFDD  PRESENCE
    optional }|
    { ID id-PrimaryCCPCH-Information-Cell-SetupRqstFDD       CRITICALITY reject  TYPE PrimaryCCPCH-Information-Cell-SetupRqstFDD        PRESENCE
    mandatory }|
    { ID id-Limited-power-increase-information-Cell-SetupRqstFDD    CRITICALITY reject  TYPE Limited-power-increase-information-Cell-SetupRqstFDD
        PRESENCE mandatory },
    ...
}

CellSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-IPDLParameter-Information-Cell-SetupRqstFDD     CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-SetupRqstFDD
    PRESENCE optional }|
    { ID id-CellPortion-InformationList-Cell-SetupRqstFDD   CRITICALITY reject  EXTENSION CellPortion-InformationList-Cell-SetupRqstFDD
    PRESENCE optional },
    ...
}

Synchronisation-Configuration-Cell-SetupRqst ::= SEQUENCE {
    n-INSYNC-IND            N-INSYNC-IND,
    n-OUTSYNC-IND           N-OUTSYNC-IND,
    t-RLFAILURE             T-RLFAILURE,
    iE-Extensions           ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-SetupRqst-ExtIEs} }     OPTIONAL,
```

```
    ...
}

Synchronisation-Configuration-Cell-SetupRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    primarySCH-Power                        DL-Power,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    secondarySCH-Power                      DL-Power,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCPICH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    primaryCPICH-Power                      PrimaryCPICH-Power,
    transmitDiversityIndicator              TransmitDiversityIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCPICH-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container{{ SecondaryCPICH-
InformationItemIE-Cell-SetupRqstFDD }}

SecondaryCPICH-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD     CRITICALITY     reject                          TYPE  SecondaryCPICH-
InformationItem-Cell-SetupRqstFDD       PRESENCE    mandatory}
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    dl-ScramblingCode                       DL-ScramblingCode,
```

```
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    secondaryCPICH-Power                    DL-Power,
    transmitDiversityIndicator              TransmitDiversityIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    bCH-information                         BCH-Information-Cell-SetupRqstFDD,
    sTTD-Indicator                          STTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    bCH-Power                               DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { BCH-Information-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
 }

BCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Limited-power-increase-information-Cell-SetupRqstFDD ::= SEQUENCE {
    powerRaiseLimit                         PowerRaiseLimit,
    dLPowerAveragingWindowSize              DLPowerAveragingWindowSize,
    iE-Extensions                           ProtocolExtensionContainer { { Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-SetupRqstFDD::= SEQUENCE {
    iPDL-FDD-Parameters                         IPDL-FDD-Parameters,
    iPDL-Indicator                              IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-Cell-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

CellPortion-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF ProtocolIE-Single-Container{{ CellPortion-
InformationItemIE-Cell-SetupRqstFDD }}

CellPortion-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellPortion-InformationItem-Cell-SetupRqstFDD   CRITICALITY reject  TYPE CellPortion-InformationItem-Cell-SetupRqstFDD
    PRESENCE    mandatory}
}

CellPortion-InformationItem-Cell-SetupRqstFDD::= SEQUENCE {
    cellPortionID                           CellPortionID,
    associatedSecondaryCPICH                CommonPhysicalChannelID,
    maximumTransmissionPowerforCellPortion              MaximumTransmissionPower,
    iE-Extensions                           ProtocolExtensionContainer { { CellPortion-InformationItem-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

CellPortion-InformationItem-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- **************************************************************
--
-- CELL SETUP REQUEST TDD
--
-- **************************************************************

CellSetupRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSetupRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSetupRequestTDD-Extensions}}      OPTIONAL,
    ...
}

CellSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-ID                                   CRITICALITY reject  TYPE Local-Cell-ID                              PRESENCE mandatory
}|
    { ID id-C-ID                                            CRITICALITY reject  TYPE C-ID                                       PRESENCE mandatory
}|
    { ID id-ConfigurationGenerationID                       CRITICALITY reject  TYPE ConfigurationGenerationID                  PRESENCE mandatory
}|
    { ID id-UARFCNforNt                                     CRITICALITY reject  TYPE UARFCN                                     PRESENCE mandatory
}|
    { ID id-CellParameterID                                 CRITICALITY reject  TYPE CellParameterID                            PRESENCE mandatory
}|
    { ID id-MaximumTransmissionPower                        CRITICALITY reject  TYPE MaximumTransmissionPower                   PRESENCE mandatory
}|
    { ID id-TransmissionDiversityApplied                    CRITICALITY reject  TYPE TransmissionDiversityApplied               PRESENCE mandatory
}|
    { ID id-SyncCase                                        CRITICALITY reject  TYPE SyncCase                                   PRESENCE mandatory
}|
    { ID id-Synchronisation-Configuration-Cell-SetupRqst    CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-SetupRqst PRESENCE
mandatory }|
```

```
    { ID id-DPCHConstant                                    CRITICALITY reject  TYPE ConstantValue                              PRESENCE mandatory
}|  -- This IE shall be ignored by the Node B.
    { ID id-PUSCHConstant                                   CRITICALITY reject  TYPE ConstantValue                              PRESENCE mandatory
}|  -- This IE shall be ignored by the Node B.
    { ID id-PRACHConstant                                   CRITICALITY reject  TYPE ConstantValue                              PRESENCE mandatory
}|  -- This IE shall be ignored by the Node B.
    { ID id-TimingAdvanceApplied                            CRITICALITY reject  TYPE TimingAdvanceApplied                       PRESENCE mandatory
}|
    { ID id-SCH-Information-Cell-SetupRqstTDD               CRITICALITY reject  TYPE SCH-Information-Cell-SetupRqstTDD          PRESENCE optional }|
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
    { ID id-PCCPCH-Information-Cell-SetupRqstTDD            CRITICALITY reject  TYPE PCCPCH-Information-Cell-SetupRqstTDD       PRESENCE optional }|
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
    { ID id-TimeSlotConfigurationList-Cell-SetupRqstTDD     CRITICALITY reject  TYPE TimeSlotConfigurationList-Cell-SetupRqstTDD  PRESENCE optional
},  -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
    ...
}

CellSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD     CRITICALITY reject  EXTENSION TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-PCCPCH-LCR-Information-Cell-SetupRqstTDD            CRITICALITY reject  EXTENSION PCCPCH-LCR-Information-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-DwPCH-LCR-Information-Cell-SetupRqstTDD             CRITICALITY reject  EXTENSION DwPCH-LCR-Information-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-ReferenceSFNoffset                                  CRITICALITY ignore  EXTENSION ReferenceSFNoffset
    PRESENCE optional }|
    { ID id-IPDLParameter-Information-Cell-SetupRqstTDD         CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Applicable to 3.84Mcps TDD only
    { ID id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD     CRITICALITY reject  EXTENSION IPDLParameter-Information-LCR-Cell-SetupRqstTDD
    PRESENCE optional },    -- Applicable to 1.28Mcps TDD only
    ...
}


SCH-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    syncCaseIndicator                       SyncCaseIndicator-Cell-SetupRqstTDD-PSCH,
    sCH-Power                               DL-Power,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { SCH-Information-Cell-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

SCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncCaseIndicator-Cell-SetupRqstTDD-PSCH ::= ProtocolIE-Single-Container {{ SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH }}

SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH NBAP-PROTOCOL-IES ::= {
    { ID id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH   CRITICALITY reject   TYPE SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH    PRESENCE
mandatory }
}
```

```
SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH ::= CHOICE {
    case1                               Case1-Cell-SetupRqstTDD,
    case2                               Case2-Cell-SetupRqstTDD,
    ...
}

Case1-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlot                            TimeSlot,
    iE-Extensions                       ProtocolExtensionContainer { { Case1Item-Cell-SetupRqstTDD-ExtIEs} }          OPTIONAL,
    ...
}

Case1Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Case2-Cell-SetupRqstTDD ::= SEQUENCE {
    sCH-TimeSlot                        SCH-TimeSlot,
    iE-Extensions                       ProtocolExtensionContainer { { Case2Item-Cell-SetupRqstTDD-ExtIEs} }          OPTIONAL,
    ...
}

Case2Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


PCCPCH-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    pCCPCH-Power                            PCCPCH-Power,
    sCTD-Indicator                          SCTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeSlotConfigurationList-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-SetupRqstTDD

TimeSlotConfigurationItem-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    timeSlotStatus                          TimeSlotStatus,
    timeSlotDirection                       TimeSlotDirection,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD

TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    timeSlotStatus                      TimeSlotStatus,
    timeSlotDirection                   TimeSlotDirection,
    iE-Extensions                       ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-LCR-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset           TDD-PhysicalChannelOffset,
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    pCCPCH-Power                        PCCPCH-Power,
    sCTD-Indicator                      SCTD-Indicator,
    tSTD-Indicator                      TSTD-Indicator,
    iE-Extensions                       ProtocolExtensionContainer { { PCCPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PCCPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DwPCH-LCR-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelId         CommonPhysicalChannelID,
    tSTD-Indicator                  TSTD-Indicator,
    dwPCH-Power                     DwPCH-Power,
    iE-Extensions                   ProtocolExtensionContainer { { DwPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DwPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters                 IPDL-TDD-Parameters,
    iPDL-Indicator                      IPDL-Indicator,
    iE-Extensions                       ProtocolExtensionContainer { { IPDLParameter-Information-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
IPDLParameter-Information-LCR-Cell-SetupRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters-LCR                IPDL-TDD-Parameters-LCR,
    iPDL-Indicator                         IPDL-Indicator,
    iE-Extensions                          ProtocolExtensionContainer { { IPDLParameter-Information-LCR-Cell-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

IPDLParameter-Information-LCR-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SETUP RESPONSE
--
-- **************************************************************

CellSetupResponse ::= SEQUENCE {
    protocolIEs                ProtocolIE-Container    {{CellSetupResponse-IEs}},
    protocolExtensions         ProtocolExtensionContainer  {{CellSetupResponse-Extensions}}                      OPTIONAL,
    ...
}

CellSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics            PRESENCE optional},
    ...
}

CellSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SETUP FAILURE
--
-- **************************************************************

CellSetupFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSetupFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSetupFailure-Extensions}}         OPTIONAL,
    ...
}

CellSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                            CRITICALITY ignore          TYPE    Cause                             PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics           CRITICALITY ignore          TYPE    CriticalityDiagnostics            PRESENCE optional },
    ...
}

CellSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- CELL RECONFIGURATION REQUEST FDD
--
-- **************************************************************

CellReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellReconfigurationRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellReconfigurationRequestFDD-Extensions}}                  OPTIONAL,
    ...
}

CellReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                             CRITICALITY reject  TYPE C-ID
    PRESENCE mandatory }|
    { ID    id-ConfigurationGenerationID                        CRITICALITY reject  TYPE ConfigurationGenerationID
    PRESENCE mandatory }|
    { ID    id-MaximumTransmissionPower                         CRITICALITY reject  TYPE MaximumTransmissionPower
    PRESENCE optional }|
    { ID    id-Synchronisation-Configuration-Cell-ReconfRqst    CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-ReconfRqst
    PRESENCE optional }|
    { ID    id-PrimarySCH-Information-Cell-ReconfRqstFDD        CRITICALITY reject  TYPE PrimarySCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID    id-SecondarySCH-Information-Cell-ReconfRqstFDD      CRITICALITY reject  TYPE SecondarySCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID    id-PrimaryCPICH-Information-Cell-ReconfRqstFDD      CRITICALITY reject  TYPE PrimaryCPICH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID    id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD    CRITICALITY reject  TYPE SecondaryCPICH-InformationList-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID    id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD      CRITICALITY reject  TYPE PrimaryCCPCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional },
    ...
}

CellReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-IPDLParameter-Information-Cell-ReconfRqstFDD CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID id-CellPortion-InformationList-Cell-ReconfRqstFDD  CRITICALITY reject  EXTENSION CellPortion-InformationList-Cell-ReconfRqstFDD
    PRESENCE optional },
    ...
}

Synchronisation-Configuration-Cell-ReconfRqst ::= SEQUENCE {
    n-INSYNC-IND            N-INSYNC-IND,
    n-OUTSYNC-IND           N-OUTSYNC-IND,
    t-RLFAILURE             T-RLFAILURE,
    iE-Extensions           ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
PrimarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    primarySCH-Power                        DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PrimarySCH-Information-Cell-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
 }

PrimarySCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    secondarySCH-Power                      DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
 }

SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCPICH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    primaryCPICH-Power                      PrimaryCPICH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
 }

PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCPICH-InformationList-Cell-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container{{ SecondaryCPICH-
InformationItemIE-Cell-ReconfRqstFDD }}

SecondaryCPICH-InformationItemIE-Cell-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD    CRITICALITY reject  TYPE    SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD
        PRESENCE mandatory }
}

SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    secondaryCPICH-Power                        DL-Power,
    iE-Extensions                               ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
 }

SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
```

```
    bCH-information                         BCH-information-Cell-ReconfRqstFDD,
    iE-Extensions                           ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
 }

PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BCH-information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    bCH-Power                               DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { BCH-information-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
 }

BCH-information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-ReconfRqstFDD::= SEQUENCE {
    iPDL-FDD-Parameters                         IPDL-FDD-Parameters     OPTIONAL,
    iPDL-Indicator                              IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-Cell-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellPortion-InformationList-Cell-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF ProtocolIE-Single-Container{{ CellPortion-
InformationItemIE-Cell-ReconfRqstFDD }}

CellPortion-InformationItemIE-Cell-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellPortion-InformationItem-Cell-ReconfRqstFDD  CRITICALITY reject  TYPE CellPortion-InformationItem-Cell-ReconfRqstFDD
    PRESENCE    mandatory}
}

CellPortion-InformationItem-Cell-ReconfRqstFDD::= SEQUENCE {
    cellPortionID                           CellPortionID,
    maximumTransmissionPowerforCellPortion              MaximumTransmissionPower,
    iE-Extensions                           ProtocolExtensionContainer { { CellPortion-InformationItem-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

CellPortion-InformationItem-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- **************************************************************
--
-- CELL RECONFIGURATION REQUEST TDD
--
```

```
-- **************************************************************

CellReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellReconfigurationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellReconfigurationRequestTDD-Extensions}}                 OPTIONAL,
    ...
}

CellReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                        CRITICALITY reject  TYPE C-ID                                       PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID                   CRITICALITY reject  TYPE ConfigurationGenerationID                  PRESENCE mandatory }|
    { ID id-Synchronisation-Configuration-Cell-ReconfRqst   CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-ReconfRqst   PRESENCE
optional }|
    { ID id-TimingAdvanceApplied                        CRITICALITY reject  TYPE TimingAdvanceApplied                       PRESENCE optional }|
    { ID id-SCH-Information-Cell-ReconfRqstTDD          CRITICALITY reject  TYPE SCH-Information-Cell-ReconfRqstTDD         PRESENCE optional }|
    -- Applicable to 3.84Mcps TDD only
    { ID id-PCCPCH-Information-Cell-ReconfRqstTDD       CRITICALITY reject  TYPE PCCPCH-Information-Cell-ReconfRqstTDD      PRESENCE optional }|
    { ID id-MaximumTransmissionPower                    CRITICALITY reject  TYPE MaximumTransmissionPower                   PRESENCE optional }|
    { ID id-DPCHConstant                                CRITICALITY reject  TYPE ConstantValue                              PRESENCE optional }|
    -- This IE shall be ignored by the Node B.
    { ID id-PUSCHConstant                               CRITICALITY reject  TYPE ConstantValue                              PRESENCE optional }|
    -- This IE shall be ignored by the Node B.
    { ID id-PRACHConstant                               CRITICALITY reject  TYPE ConstantValue                              PRESENCE optional }|
    -- This IE shall be ignored by the Node B.
    { ID id-TimeSlotConfigurationList-Cell-ReconfRqstTDD    CRITICALITY reject  TYPE TimeSlotConfigurationList-Cell-ReconfRqstTDD    PRESENCE
optional },
    -- Mandatory for 3.84Mcps TDD only. Not Applicable to 1.28Mcps TDD.
    ...
}

CellReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD CRITICALITY reject  EXTENSION TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID    id-DwPCH-LCR-Information-Cell-ReconfRqstTDD         CRITICALITY reject  EXTENSION DwPCH-LCR-Information-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID    id-IPDLParameter-Information-Cell-ReconfRqstTDD     CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Applicable to 3.84Mcps TDD only
    { ID    id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD CRITICALITY reject  EXTENSION IPDLParameter-Information-LCR-Cell-ReconfRqstTDD
    PRESENCE optional },    -- Applicable to 1.28Mcps TDD only
    ...
}

SCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    sCH-Power                               DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PSCH-Information-Cell-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PSCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
```

```
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    pCCPCH-Power                            PCCPCH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeSlotConfigurationList-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-ReconfRqstTDD

TimeSlotConfigurationItem-Cell-ReconfRqstTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    timeSlotStatus                          TimeSlotStatus,
    timeSlotDirection                       TimeSlotDirection,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
 }

TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD

TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    timeSlotStatus                          TimeSlotStatus,
    timeSlotDirection                       TimeSlotDirection,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD-ExtIEs} }   OPTIONAL,
    ...
 }

TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DwPCH-LCR-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelId                 CommonPhysicalChannelID,
    dwPCH-Power                             DwPCH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { DwPCH-LCR-Information-Cell-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
 }

DwPCH-LCR-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters                     IPDL-TDD-Parameters     OPTIONAL,
    iPDL-Indicator                          IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-Cell-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
```

```
}

IPDLParameter-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-LCR-Cell-ReconfRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters-LCR                IPDL-TDD-Parameters-LCR     OPTIONAL,
    iPDL-Indicator                         IPDL-Indicator,
    iE-Extensions                          ProtocolExtensionContainer { { IPDLParameter-Information-LCR-Cell-ReconfRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

IPDLParameter-Information-LCR-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL RECONFIGURATION RESPONSE
--
-- **************************************************************

CellReconfigurationResponse ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container    {{CellReconfigurationResponse-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{CellReconfigurationResponse-Extensions}}                OPTIONAL,
    ...
}

CellReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics            PRESENCE optional},
    ...
}

CellReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL RECONFIGURATION FAILURE
--
-- **************************************************************

CellReconfigurationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellReconfigurationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellReconfigurationFailure-Extensions}}                    OPTIONAL,
    ...
}

CellReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                       CRITICALITY ignore          TYPE Cause                                      PRESENCE mandatory   }|
    { ID id-CriticalityDiagnostics      CRITICALITY ignore          TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
```

```
}

CellReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL DELETION REQUEST
--
-- **************************************************************

CellDeletionRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellDeletionRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellDeletionRequest-Extensions}}      OPTIONAL,
    ...
}

CellDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID         CRITICALITY     reject          TYPE    C-ID        PRESENCE    mandatory},
    ...
}

CellDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL DELETION RESPONSE
--
-- **************************************************************

CellDeletionResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellDeletionResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellDeletionResponse-Extensions}}     OPTIONAL,
    ...
}

CellDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics            PRESENCE optional},
    ...
}

CellDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RESOURCE STATUS INDICATION
--
-- **************************************************************
```

```
ResourceStatusIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{ResourceStatusIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResourceStatusIndication-Extensions}}                    OPTIONAL,
    ...
}

ResourceStatusIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-IndicationType-ResourceStatusInd    CRITICALITY ignore  TYPE IndicationType-ResourceStatusInd             PRESENCE mandatory }|
    { ID id-Cause                               CRITICALITY ignore  TYPE Cause                                       PRESENCE optional },
    ...
}

ResourceStatusIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IndicationType-ResourceStatusInd ::= CHOICE {
    no-Failure                          No-Failure-ResourceStatusInd,
    serviceImpacting                    ServiceImpacting-ResourceStatusInd,
    ...
}

No-Failure-ResourceStatusInd ::= SEQUENCE {
    local-Cell-InformationList              Local-Cell-InformationList-ResourceStatusInd,
    local-Cell-Group-InformationList        Local-Cell-Group-InformationList-ResourceStatusInd  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { No-FailureItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
    ...
}

No-FailureItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-Power-Local-Cell-Group-InformationList-ResourceStatusInd     CRITICALITY     ignore                      EXTENSION   Power-Local-
Cell-Group-InformationList-ResourceStatusInd        PRESENCE    optional    },
    ...
}

Local-Cell-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-
InformationItemIE-ResourceStatusInd }}

Local-Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem-ResourceStatusInd   CRITICALITY ignore   TYPE Local-Cell-InformationItem-ResourceStatusInd    PRESENCE
mandatory }
}

Local-Cell-InformationItem-ResourceStatusInd ::= SEQUENCE {
    local-CellID                            Local-Cell-ID,
    addorDeleteIndicator                    AddorDeleteIndicator,
    dl-or-global-capacityCredit             DL-or-Global-CapacityCredit             OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    ul-capacityCredit                       UL-CapacityCredit                       OPTIONAL,
    commonChannelsCapacityConsumptionLaw    CommonChannelsCapacityConsumptionLaw    OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    maximumDL-PowerCapability               MaximumDL-PowerCapability               OPTIONAL,
```

```
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    minSpreadingFactor                      MinSpreadingFactor                          OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    minimumDL-PowerCapability               MinimumDL-PowerCapability                   OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    local-Cell-Group-ID                     Local-Cell-ID                               OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Local-Cell-InformationItem-ResourceStatusInd-ExtIEs} }OPTIONAL,
    ...
}

Local-Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-ReferenceClockAvailability       CRITICALITY ignore      EXTENSION ReferenceClockAvailability            PRESENCE optional }|
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add' and the Local Cell is related to a TDD cell
    { ID    id-Power-Local-Cell-Group-ID        CRITICALITY ignore      EXTENSION Local-Cell-ID                         PRESENCE optional }|
    { ID    id-HSDPA-Capability                 CRITICALITY ignore      EXTENSION HSDPA-Capability                      PRESENCE optional }|
    { ID    id-E-DCH-Capability                 CRITICALITY ignore      EXTENSION E-DCH-Capability                      PRESENCE optional }|
    { ID    id-E-DCH-TTI2ms-Capability          CRITICALITY ignore      EXTENSION E-DCH-TTI2ms-Capability               PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-SF-Capability              CRITICALITY ignore      EXTENSION E-DCH-SF-Capability                   PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-HARQ-Combining-Capability              CRITICALITY ignore          EXTENSION E-DCH-HARQ-Combining-Capability       PRESENCE
    conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-CapacityConsumptionLaw     CRITICALITY ignore      EXTENSION E-DCHCapacityConsumptionLaw         PRESENCE optional }|
    { ID    id-F-DPCH-Capability                CRITICALITY ignore      EXTENSION F-DPCH-Capability                   PRESENCE optional },
    ...
}

Local-Cell-Group-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE-ResourceStatusInd }}

Local-Cell-Group-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-Group-InformationItem-ResourceStatusInd   CRITICALITY ignore TYPE Local-Cell-Group-InformationItem-ResourceStatusInd
    PRESENCE mandatory }
}

Local-Cell-Group-InformationItem-ResourceStatusInd::= SEQUENCE {
    local-Cell-Group-ID                     Local-Cell-ID,
    dl-or-global-capacityCredit             DL-or-Global-CapacityCredit,
    ul-capacityCredit                       UL-CapacityCredit       OPTIONAL,
    commonChannelsCapacityConsumptionLaw    CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw,
    iE-Extensions                           ProtocolExtensionContainer { { Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs} }
    OPTIONAL,
    ...
}

Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-E-DCH-CapacityConsumptionLaw     CRITICALITY ignore      EXTENSION E-DCHCapacityConsumptionLaw         PRESENCE optional },
    ...
}

Power-Local-Cell-Group-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-Local-
Cell-Group-InformationItemIE-ResourceStatusInd }}
```

```
Power-Local-Cell-Group-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID    id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd CRITICALITY ignore  TYPE  Power-Local-Cell-Group-InformationItem-
ResourceStatusInd       PRESENCE    mandatory   }
}

Power-Local-Cell-Group-InformationItem-ResourceStatusInd::= SEQUENCE {
    power-Local-Cell-Group-ID                   Local-Cell-ID,
    maximumDL-PowerCapability                   MaximumDL-PowerCapability,
    iE-Extensions                               ProtocolExtensionContainer { { Power-Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs} }
    OPTIONAL,
    ...
}

Power-Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ServiceImpacting-ResourceStatusInd ::= SEQUENCE {
    local-Cell-InformationList              Local-Cell-InformationList2-ResourceStatusInd   OPTIONAL,
    local-Cell-Group-InformationList        Local-Cell-Group-InformationList2-ResourceStatusInd OPTIONAL,
    cCP-InformationList                     CCP-InformationList-ResourceStatusInd           OPTIONAL,
    cell-InformationList                    Cell-InformationList-ResourceStatusInd          OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { ServiceImpactingItem-ResourceStatusInd-ExtIEs} }    OPTIONAL,
    ...
}

ServiceImpactingItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd        CRITICALITY     ignore                  EXTENSION   Power-Local-
Cell-Group-InformationList2-ResourceStatusInd       PRESENCE    optional    },
    ...
}

Local-Cell-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-
InformationItemIE2-ResourceStatusInd }}

Local-Cell-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem2-ResourceStatusInd   CRITICALITY ignore  TYPE Local-Cell-InformationItem2-ResourceStatusInd   PRESENCE
mandatory }
}

Local-Cell-InformationItem2-ResourceStatusInd ::= SEQUENCE {
    local-Cell-ID                           Local-Cell-ID,
    dl-or-global-capacityCredit             DL-or-Global-CapacityCredit             OPTIONAL,
    ul-capacityCredit                       UL-CapacityCredit                       OPTIONAL,
    commonChannelsCapacityConsumptionLaw    CommonChannelsCapacityConsumptionLaw    OPTIONAL,
    dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
    maximum-DL-PowerCapability              MaximumDL-PowerCapability               OPTIONAL,
    minSpreadingFactor                      MinSpreadingFactor                      OPTIONAL,
    minimumDL-PowerCapability               MinimumDL-PowerCapability               OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs} }   OPTIONAL,
    ...
}
```

```
Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-ReferenceClockAvailability       CRITICALITY ignore          EXTENSION ReferenceClockAvailability         PRESENCE optional }|
    { ID    id-HSDPA-Capability                 CRITICALITY ignore          EXTENSION HSDPA-Capability                   PRESENCE optional }|
    { ID    id-E-DCH-Capability                 CRITICALITY ignore          EXTENSION E-DCH-Capability                   PRESENCE optional }|
    { ID    id-E-DCH-TTI2ms-Capability          CRITICALITY ignore          EXTENSION E-DCH-TTI2ms-Capability            PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-SF-Capability              CRITICALITY ignore          EXTENSION E-DCH-SF-Capability                PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-HARQ-Combining-Capability              CRITICALITY ignore          EXTENSION E-DCH-HARQ-Combining-Capability       PRESENCE
    conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-CapacityConsumptionLaw     CRITICALITY ignore          EXTENSION E-DCHCapacityConsumptionLaw     PRESENCE optional }|
    { ID    id-F-DPCH-Capability                CRITICALITY ignore          EXTENSION F-DPCH-Capability               PRESENCE optional },
    ...
}

Local-Cell-Group-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE2-ResourceStatusInd }}

Local-Cell-Group-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-Group-InformationItem2-ResourceStatusInd   CRITICALITY ignore    TYPE Local-Cell-Group-InformationItem2-ResourceStatusInd
    PRESENCE mandatory }
}

Local-Cell-Group-InformationItem2-ResourceStatusInd ::= SEQUENCE {
    local-Cell-Group-ID                         Local-Cell-ID,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit                 OPTIONAL,
    ul-capacityCredit                           UL-CapacityCredit                           OPTIONAL,
    commonChannelsCapacityConsumptionLaw        CommonChannelsCapacityConsumptionLaw        OPTIONAL,
    dedicatedChannelsCapacityConsumptionLaw     DedicatedChannelsCapacityConsumptionLaw     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs} }
    OPTIONAL,
    ...
}

Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-E-DCH-CapacityConsumptionLaw     CRITICALITY ignore      EXTENSION E-DCHCapacityConsumptionLaw         PRESENCE optional },
    ...
}

Power-Local-Cell-Group-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-
Local-Cell-Group-InformationItemIE2-ResourceStatusInd }}

Power-Local-Cell-Group-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID    id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd    CRITICALITY ignore  TYPE Power-Local-Cell-Group-InformationItem2-
ResourceStatusInd       PRESENCE    mandatory   }
}

Power-Local-Cell-Group-InformationItem2-ResourceStatusInd:: SEQUENCE {
    power-Local-Cell-Group-ID                   Local-Cell-ID,
    maximumDL-PowerCapability                   MaximumDL-PowerCapability,
    iE-Extensions                               ProtocolExtensionContainer { { Power-Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs} }
    OPTIONAL,
    ...
```

```
}

Power-Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCP-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Single-Container {{ CCP-InformationItemIE-
ResourceStatusInd }}

CCP-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-CCP-InformationItem-ResourceStatusInd   CRITICALITY ignore  TYPE CCP-InformationItem-ResourceStatusInd    PRESENCE mandatory }
}

CCP-InformationItem-ResourceStatusInd ::= SEQUENCE {
    communicationControlPortID              CommunicationControlPortID,
    resourceOperationalState                ResourceOperationalState,
    availabilityStatus                      AvailabilityStatus,
    iE-Extensions                           ProtocolExtensionContainer { { CCP-InformationItem-ResourceStatusInd-ExtIEs} }     OPTIONAL,
    ...
}

CCP-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ Cell-InformationItemIE-
ResourceStatusInd }}

Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Cell-InformationItem-ResourceStatusInd   CRITICALITY ignore TYPE Cell-InformationItem-ResourceStatusInd   PRESENCE mandatory }
}

Cell-InformationItem-ResourceStatusInd  ::= SEQUENCE {
    c-ID                                    C-ID,
    resourceOperationalState                ResourceOperationalState                    OPTIONAL,
    availabilityStatus                      AvailabilityStatus                          OPTIONAL,
    primary-SCH-Information                 P-SCH-Information-ResourceStatusInd         OPTIONAL, -- FDD only
    secondary-SCH-Information               S-SCH-Information-ResourceStatusInd         OPTIONAL, -- FDD only
    primary-CPICH-Information               P-CPICH-Information-ResourceStatusInd       OPTIONAL, -- FDD only
    secondary-CPICH-Information             S-CPICH-InformationList-ResourceStatusInd   OPTIONAL, -- FDD only
    primary-CCPCH-Information               P-CCPCH-Information-ResourceStatusInd       OPTIONAL,
    bCH-Information                         BCH-Information-ResourceStatusInd           OPTIONAL,
    secondary-CCPCH-InformationList         S-CCPCH-InformationList-ResourceStatusInd   OPTIONAL,
    pCH-Information                         PCH-Information-ResourceStatusInd           OPTIONAL,
    pICH-Information                        PICH-Information-ResourceStatusInd          OPTIONAL,
    fACH-InformationList                    FACH-InformationList-ResourceStatusInd      OPTIONAL,
    pRACH-InformationList                   PRACH-InformationList-ResourceStatusInd     OPTIONAL,
    rACH-InformationList                    RACH-InformationList-ResourceStatusInd      OPTIONAL,
    aICH-InformationList                    AICH-InformationList-ResourceStatusInd      OPTIONAL, -- FDD only
    notUsed-1-pCPCH-InformationList         NULL                                        OPTIONAL,
    notUsed-2-cPCH-InformationList          NULL                                        OPTIONAL,
    notUsed-3-aP-AICH-InformationList       NULL                                        OPTIONAL,
    notUsed-4-cDCA-ICH-InformationList      NULL                                        OPTIONAL,
    sCH-Information                         SCH-Information-ResourceStatusInd           OPTIONAL, -- Applicable to 3.84Mcps TDD only
```

```
    iE-Extensions                       ProtocolExtensionContainer { { Cell-InformationItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
    ...
}

Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-InformationList-ResourceStatusInd         CRITICALITY ignore  EXTENSION FPACH-LCR-InformationList-ResourceStatusInd
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-DwPCH-LCR-Information-ResourceStatusInd             CRITICALITY ignore  EXTENSION DwPCH-LCR-Information-ResourceStatusInd
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-HSDSCH-Resources-Information-ResourceStatusInd      CRITICALITY ignore  EXTENSION HS-DSCH-Resources-Information-ResourceStatusInd
    PRESENCE optional }|
    { ID id-MICH-Information-ResourceStatusInd                  CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information
    PRESENCE optional }|
    { ID id-S-CCPCH-InformationListExt-ResourceStatusInd        CRITICALITY ignore  EXTENSION S-CCPCH-InformationListExt-ResourceStatusInd
    PRESENCE optional }|
    -- Applicable to 3.84Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the message.
    { ID id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd    CRITICALITY ignore  EXTENSION S-CCPCH-LCR-InformationListExt-ResourceStatusInd
    PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the message.
    { ID id-E-DCH-Resources-Information-ResourceStatusInd       CRITICALITY ignore  EXTENSION E-DCH-Resources-Information-ResourceStatusInd
    PRESENCE optional },
    ...
}

P-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-SCH-InformationIE-ResourceStatusInd }}

P-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-P-SCH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                    PRESENCE mandatory }
}

S-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ S-SCH-InformationIE-ResourceStatusInd }}

S-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-SCH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                    PRESENCE mandatory }
}

P-CPICH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-CPICH-InformationIE-ResourceStatusInd }}

P-CPICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-P-CPICH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

S-CPICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ S-CPICH-InformationItemIE-
ResourceStatusInd }}

S-CPICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-CPICH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

P-CCPCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-CCPCH-InformationIE-ResourceStatusInd }}

P-CCPCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-P-CCPCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}
```

```
BCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ BCH-InformationIE-ResourceStatusInd }}

BCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-BCH-Information   CRITICALITY ignore    TYPE Common-TransportChannel-Status-Information                  PRESENCE mandatory }
}

S-CCPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-
ResourceStatusInd }}

S-CCPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

PCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ PCH-InformationIE-ResourceStatusInd }}

PCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-Information   CRITICALITY ignore    TYPE Common-TransportChannel-Status-Information                  PRESENCE mandatory }
}

PICH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ PICH-InformationIE-ResourceStatusInd }}

PICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-Information   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information                  PRESENCE mandatory }
}

FACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Single-Container {{ FACH-InformationItemIE-
ResourceStatusInd }}

FACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-Information   CRITICALITY ignore   TYPE Common-TransportChannel-Status-Information                  PRESENCE mandatory }
}

PRACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-InformationItemIE-
ResourceStatusInd }}

PRACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                  PRESENCE mandatory }
}

RACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ RACH-InformationItemIE-
ResourceStatusInd }}

RACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-Information   CRITICALITY ignore   TYPE Common-TransportChannel-Status-Information                  PRESENCE mandatory }
}

AICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ AICH-InformationItemIE-
ResourceStatusInd }}

AICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-AICH-Information   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information                  PRESENCE mandatory }
}
```

```
SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ SCH-InformationIE-ResourceStatusInd }}

SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-SCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                    PRESENCE mandatory }
}

FPACH-LCR-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFPACHCell)) OF ProtocolIE-Single-Container {{ FPACH-LCR-InformationItemIE-
ResourceStatusInd }}

FPACH-LCR-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-FPACH-LCR-Information  CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

DwPCH-LCR-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ DwPCH-LCR-InformationIE-ResourceStatusInd }}

DwPCH-LCR-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-DwPCH-LCR-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

HS-DSCH-Resources-Information-ResourceStatusInd ::= SEQUENCE {
    resourceOperationalState           ResourceOperationalState,
    availabilityStatus                 AvailabilityStatus,
    iE-Extensions                      ProtocolExtensionContainer  {{ HS-DSCH-Resources-Information-ResourceStatusInd-ExtIEs }}     OPTIONAL,
    ...
}

HS-DSCH-Resources-Information-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

S-CCPCH-InformationListExt-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExt)) OF ProtocolIE-Single-Container {{ S-CCPCH-
InformationItemIE-ResourceStatusInd }}

S-CCPCH-LCR-InformationListExt-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExtLCR)) OF ProtocolIE-Single-Container {{ S-CCPCH-
InformationItemIE-ResourceStatusInd }}

E-DCH-Resources-Information-ResourceStatusInd ::= SEQUENCE {
    resourceOperationalState           ResourceOperationalState,
    availabilityStatus                 AvailabilityStatus,
    iE-Extensions                      ProtocolExtensionContainer  {{ E-DCH-Resources-Information-ResourceStatusInd-ExtIEs }}    OPTIONAL,
    ...
}

E-DCH-Resources-Information-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- SYSTEM INFORMATION UPDATE REQUEST
--
-- **************************************************************

SystemInformationUpdateRequest ::= SEQUENCE {
```

```
    protocolIEs             ProtocolIE-Container    {{SystemInformationUpdateRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{SystemInformationUpdateRequest-Extensions}}                OPTIONAL,
    ...
}

SystemInformationUpdateRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                        CRITICALITY reject  TYPE C-ID                               PRESENCE mandatory }|
    { ID id-BCCH-ModificationTime                       CRITICALITY reject  TYPE BCCH-ModificationTime              PRESENCE optional }|
    { ID id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst     CRITICALITY reject  TYPE MIB-SB-SIB-InformationList-SystemInfoUpdateRqst
    PRESENCE mandatory },
    ...
}

SystemInformationUpdateRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MIB-SB-SIB-InformationList-SystemInfoUpdateRqst ::= SEQUENCE (SIZE (1..maxIB)) OF MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst

MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst ::= SEQUENCE {
    iB-Type                         IB-Type,
    iB-OC-ID                        IB-OC-ID,
    deletionIndicator               DeletionIndicator-SystemInfoUpdate,
    iE-Extensions                   ProtocolExtensionContainer { { MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs} }     OPTIONAL,
    ...
}

MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DeletionIndicator-SystemInfoUpdate ::= CHOICE {
    no-Deletion                     No-Deletion-SystemInfoUpdate,
    yes-Deletion                    NULL

}

No-Deletion-SystemInfoUpdate ::= SEQUENCE {
    sIB-Originator                      SIB-Originator          OPTIONAL,
    -- This IE shall be present if the IB-Type IE is set to "SIB"
    iB-SG-REP                           IB-SG-REP               OPTIONAL,
    segmentInformationList              SegmentInformationList-SystemInfoUpdate,
    iE-Extensions                       ProtocolExtensionContainer { { No-DeletionItem-SystemInfoUpdate-ExtIEs} }    OPTIONAL,
    ...
}

No-DeletionItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-SystemInfoUpdate ::= ProtocolIE-Single-Container {{ SegmentInformationListIEs-SystemInfoUpdate }}

SegmentInformationListIEs-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    { ID id-SegmentInformationListIE-SystemInfoUpdate   CRITICALITY reject  TYPE SegmentInformationListIE-SystemInfoUpdate     PRESENCE mandatory }
```

```
}

SegmentInformationListIE-SystemInfoUpdate ::= SEQUENCE (SIZE (1..maxIBSEG)) OF SegmentInformationItem-SystemInfoUpdate

SegmentInformationItem-SystemInfoUpdate ::= SEQUENCE {
    iB-SG-POS                           IB-SG-POS           OPTIONAL,
    segment-Type                        Segment-Type        OPTIONAL,
    -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type IE is set to "MIB", "SB1" or "SB2"
    iB-SG-DATA                          IB-SG-DATA          OPTIONAL,
    -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type IE is set to "MIB", "SB1" or "SB2"
    iE-Extensions                       ProtocolExtensionContainer { { SegmentInformationItem-SystemInfoUpdate-ExtIEs} }OPTIONAL,
    ...
}

SegmentInformationItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- SYSTEM INFORMATION UPDATE RESPONSE
--
-- **************************************************************

SystemInformationUpdateResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{SystemInformationUpdateResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{SystemInformationUpdateResponse-Extensions}}              OPTIONAL,
    ...
}

SystemInformationUpdateResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics          PRESENCE optional},
    ...
}

SystemInformationUpdateResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- SYSTEM INFORMATION UPDATE FAILURE
--
-- **************************************************************

SystemInformationUpdateFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{SystemInformationUpdateFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{SystemInformationUpdateFailure-Extensions}}              OPTIONAL,
    ...
}

SystemInformationUpdateFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                        CRITICALITY     ignore          TYPE    Cause                           PRESENCE mandatory
    }|
```

```
    { ID    id-CriticalityDiagnostics           CRITICALITY     ignore          TYPE    CriticalityDiagnostics        PRESENCE optional },
    ...
}

SystemInformationUpdateFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST FDD
--
-- **************************************************************

RadioLinkSetupRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkSetupRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupRequestFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                     CRITICALITY reject  TYPE CRNC-CommunicationContextID              PRESENCE mandatory
}|
    { ID id-UL-DPCH-Information-RL-SetupRqstFDD             CRITICALITY reject  TYPE UL-DPCH-Information-RL-SetupRqstFDD      PRESENCE mandatory
}|
    { ID id-DL-DPCH-Information-RL-SetupRqstFDD             CRITICALITY reject  TYPE DL-DPCH-Information-RL-SetupRqstFDD      PRESENCE optional }|
    { ID id-DCH-FDD-Information                             CRITICALITY reject  TYPE DCH-FDD-Information                      PRESENCE mandatory
}|
    { ID id-RL-InformationList-RL-SetupRqstFDD              CRITICALITY notify  TYPE RL-InformationList-RL-SetupRqstFDD       PRESENCE mandatory
}|
   { ID id-Transmission-Gap-Pattern-Sequence-Information    CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information
       PRESENCE optional } |
   { ID id-Active-Pattern-Sequence-Information              CRITICALITY reject  TYPE Active-Pattern-Sequence-Information      PRESENCE optional },
    ...
}

RadioLinkSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-Information           CRITICALITY ignore  EXTENSION DL-PowerBalancing-Information       PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                  CRITICALITY reject  EXTENSION HSDSCH-FDD-Information              PRESENCE optional }|
    { ID id-HSDSCH-RNTI                            CRITICALITY reject  EXTENSION HSDSCH-RNTI                        PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-HSPDSCH-RL-ID                          CRITICALITY reject  EXTENSION RL-ID                              PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-E-DPCH-Information-RL-SetupRqstFDD      CRITICALITY reject  EXTENSION E-DPCH-Information-RL-SetupRqstFDD  PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                   CRITICALITY reject  EXTENSION E-DCH-FDD-Information               PRESENCE conditional }|
    -- The IE shall be present if E-DPCH Information IE is present
    { ID id-Serving-E-DCH-RL-ID                    CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                 PRESENCE optional }|
        { ID id-F-DPCH-Information-RL-SetupRqstFDD  CRITICALITY reject  EXTENSION F-DPCH-Information-RL-SetupRqstFDD  PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed        CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed
    PRESENCE optional }|
    { ID id-DCH-Indicator-For-E-DCH-HSDPA-Operation     CRITICALITY reject  EXTENSION DCH-Indicator-For-E-DCH-HSDPA-Operation
        PRESENCE optional },
    ...
}
```

```
UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode                       UL-ScramblingCode,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPDCHs                        MaxNrOfUL-DPDCHs        OPTIONAL,
    -- This IE shall be present if Min UL Channelisation Code length IE is set to 4 --
    ul-PunctureLimit                        PunctureLimit,
    tFCS                                    TFCS,
    ul-DPCCH-SlotFormat                     UL-DPCCH-SlotFormat,
    ul-SIR-Target                           UL-SIR,
    diversityMode                           DiversityMode,
    not-Used-sSDT-CellID-Length             NULL        OPTIONAL,
    not-Used-s-FieldLength                  NULL            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode                                CRITICALITY reject  EXTENSION DPC-Mode                                  PRESENCE optional }|
    { ID id-UL-DPDCH-Indicator-For-E-DCH-Operation  CRITICALITY reject  EXTENSION UL-DPDCH-Indicator-For-E-DCH-Operation    PRESENCE conditional },
    -- The IE shall be present if E-DPCH Information IE is present
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    tFCS                                    TFCS,
    dl-DPCH-SlotFormat                      DL-DPCH-SlotFormat,
    tFCI-SignallingMode                     TFCI-SignallingMode,
    tFCI-Presence                           TFCI-Presence                   OPTIONAL,
    -- this IE shall be present if the DL DPCH slot format IE is set to any of the values from 12 to 16 --
    multiplexingPosition                    MultiplexingPosition,
    not-Used-pDSCH-RL-ID                    NULL                            OPTIONAL,
    not-Used-pDSCH-CodeMapping              NULL                            OPTIONAL,
    powerOffsetInformation                  PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-TPC-DownlinkStepSize                FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease                    LimitedPowerIncrease,
    innerLoopDLPCStatus                     InnerLoopDLPCStatus,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO2-ForTPC-Bits                         PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

RL-InformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF
    ProtocolIE-Single-Container{{ RL-InformationItemIE-RL-SetupRqstFDD }}

RL-InformationItemIE-RL-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-SetupRqstFDD           CRITICALITY     notify          TYPE                    RL-InformationItem-RL-
SetupRqstFDD        PRESENCE    mandatory}
}

RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    c-ID                                C-ID,
    firstRLS-indicator                  FirstRLS-Indicator,
    frameOffset                         FrameOffset,
    chipOffset                          ChipOffset,
    propagationDelay                    PropagationDelay            OPTIONAL,
    diversityControlField               DiversityControlField       OPTIONAL,
    -- This IE shall be present if the RL is not the first one in the RL Information IE
    dl-CodeInformation                  FDD-DL-CodeInformation,
    initialDL-transmissionPower         DL-Power,
    maximumDL-power                     DL-Power,
    minimumDL-power                     DL-Power,
    not-Used-sSDT-Cell-Identity         NULL                            OPTIONAL,
    transmitDiversityIndicator          TransmitDiversityIndicator      OPTIONAL,
    -- This IE shall be present if Diversity Mode IE in UL DPCH Information group is not set to 'none'
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationItem-RL-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-Specific-DCH-Info                        CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info          PRESENCE optional }|
    { ID id-DelayedActivation                           CRITICALITY reject  EXTENSION DelayedActivation             PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-for-Channel-Estimation  CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-for-Channel-Estimation  PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information                 CRITICALITY ignore  EXTENSION CommonPhysicalChannelID       PRESENCE optional }|
    { ID id-E-DCH-RL-Indication                         CRITICALITY reject  EXTENSION E-DCH-RL-Indication            PRESENCE optional }|
    { ID id-RL-Specific-E-DCH-Info                      CRITICALITY ignore  EXTENSION RL-Specific-E-DCH-Info         PRESENCE optional }|
    { ID id-SynchronisationIndicator                    CRITICALITY ignore  EXTENSION SynchronisationIndicator      PRESENCE optional },
    ...
}
E-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                             Max-Set-E-DPDCHs,
    ul-PunctureLimit                            PunctureLimit,
    e-TFCS-Information                          E-TFCS-Information,
    e-TTI                                       E-TTI,
    e-DPCCH-PO                                  E-DPCCH-PO,
    e-RGCH-2-IndexStepThreshold                 E-RGCH-2-IndexStepThreshold,
    e-RGCH-3-IndexStepThreshold                 E-RGCH-3-IndexStepThreshold,
    hARQ-Info-for-E-DCH                         HARQ-Info-for-E-DCH,
    hSDSCH-Configured-Indicator                 HSDSCH-Configured-Indicator,
    iE-Extensions                               ProtocolExtensionContainer { { E-DPCH-Information-RL-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
```

```
}

E-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    powerOffsetInformation              PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD,
    fdd-TPC-DownlinkStepSize            FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease                LimitedPowerIncrease,
    innerLoopDLPCStatus                 InnerLoopDLPCStatus,
    iE-Extensions                       ProtocolExtensionContainer { { F-DPCH-Information-RL-SetupRqstFDD-ExtIEs} }            OPTIONAL,
    ...
}

F-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD ::= SEQUENCE {
    pO2-ForTPC-Bits                     PowerOffset,
    iE-Extensions                       ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST TDD
--
-- **************************************************************

RadioLinkSetupRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkSetupRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupRequestTDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY reject  TYPE CRNC-CommunicationContextID               PRESENCE mandatory
}|
    { ID    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD PRESENCE optional }|
    { ID    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD PRESENCE optional }|
    { ID    id-DCH-TDD-Information                          CRITICALITY reject  TYPE DCH-TDD-Information                       PRESENCE optional }|
    { ID    id-DSCH-TDD-Information                         CRITICALITY reject  TYPE DSCH-TDD-Information                      PRESENCE optional }|
    { ID    id-USCH-Information                             CRITICALITY reject  TYPE USCH-Information                          PRESENCE optional }|
    { ID    id-RL-Information-RL-SetupRqstTDD               CRITICALITY reject  TYPE RL-Information-RL-SetupRqstTDD            PRESENCE mandatory
},
    ...
}
```

```
RadioLinkSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-TDD-Information          CRITICALITY reject      EXTENSION HSDSCH-TDD-Information               PRESENCE optional }|
    { ID id-HSDSCH-RNTI                     CRITICALITY reject      EXTENSION HSDSCH-RNTI                          PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-HSPDSCH-RL-ID                   CRITICALITY reject      EXTENSION RL-ID                                PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-PDSCH-RL-ID                     CRITICALITY ignore      EXTENSION RL-ID                                PRESENCE optional },
    ...
}

UL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE(1..maxNrOfCCTrCHs)) OF
    ProtocolIE-Single-Container{{ UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD }}

UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD        CRITICALITY     notify          TYPE                UL-CCTrCH-InformationItem-RL-
SetupRqstTDD        PRESENCE    mandatory}
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    tFCS                                    TFCS,
    tFCI-Coding                             TFCI-Coding,
    punctureLimit                           PunctureLimit,
    uL-DPCH-Information                     UL-DPCH-Information-RL-SetupRqstTDD     OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                           ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-Information-RL-SetupRqstTDD     CRITICALITY notify  EXTENSION UL-DPCH-LCR-Information-RL-SetupRqstTDD  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UL-SIRTarget                                CRITICALITY reject  EXTENSION UL-SIR                                    PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
    { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD  CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR               PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
    ...
}

UL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{{ UL-DPCH-InformationIE-RL-SetupRqstTDD }}

UL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationList-RL-SetupRqstTDD     CRITICALITY notify  TYPE UL-DPCH-InformationItem-RL-SetupRqstTDD    PRESENCE mandatory   }
}

UL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information                 UL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

UL-DPCH-LCR-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-TimeslotLCR-Information              UL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container{{ DL-CCTrCH-InformationItemIE-RL-
SetupRqstTDD }}

DL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD           CRITICALITY     notify                          TYPE  DL-CCTrCH-InformationItem-
RL-SetupRqstTDD     PRESENCE    mandatory}
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    tFCS                                    TFCS,
    tFCI-Coding                             TFCI-Coding,
    punctureLimit                           PunctureLimit,
    tdd-TPC-DownlinkStepSize                TDD-TPC-DownlinkStepSize,
    cCTrCH-TPCList                          CCTrCH-TPCList-RL-SetupRqstTDD          OPTIONAL,
    dL-DPCH-Information                     DL-DPCH-Information-RL-SetupRqstTDD     OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                           ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-Information-RL-SetupRqstTDD CRITICALITY notify      EXTENSION   DL-DPCH-LCR-Information-RL-SetupRqstTDD   PRESENCE optional
    }|  -- Applicable to 1.28Mcps TDD only
    { ID id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD     CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional }|
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD     CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional }|
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD     CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional },
    ...
}

CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD

CCTrCH-TPCItem-RL-SetupRqstTDD   ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

DL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{{ DL-DPCH-InformationIE-RL-SetupRqstTDD }}

DL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationList-RL-SetupRqstTDD     CRITICALITY notify  TYPE DL-DPCH-InformationItem-RL-SetupRqstTDD    PRESENCE mandatory   }
}

DL-DPCH-InformationItem-RL-SetupRqstTDD  ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-Information                 DL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-TimeslotLCR-Information              DL-TimeslotLCR-Information,
    tstdIndicator                           TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    c-ID                                    C-ID,
    frameOffset                             FrameOffset,
    specialBurstScheduling                  SpecialBurstScheduling,
    initialDL-transmissionPower             DL-Power,
    maximumDL-power                         DL-Power,
    minimumDL-power                         DL-Power,
    dL-TimeSlotISCPInfo                     DL-TimeslotISCPInfo OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                           ProtocolExtensionContainer { { RL-Information-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

RL-Information-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD   CRITICALITY reject  EXTENSION DL-TimeslotISCPInfoLCR             PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info                        CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info              PRESENCE optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
```

```
    { ID id-UL-Synchronisation-Parameters-LCR          CRITICALITY reject  EXTENSION UL-Synchronisation-Parameters-LCR  PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE FDD
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-- **************************************************************

RadioLinkSetupResponseFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkSetupResponseFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupResponseFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkSetupResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                CRITICALITY ignore  TYPE CRNC-CommunicationContextID                  PRESENCE mandatory
}|
    { ID id-NodeB-CommunicationContextID               CRITICALITY ignore  TYPE NodeB-CommunicationContextID                 PRESENCE mandatory
}|
    { ID id-CommunicationControlPortID                 CRITICALITY ignore  TYPE CommunicationControlPortID                   PRESENCE mandatory
}|
    { ID id-RL-InformationResponseList-RL-SetupRspFDD  CRITICALITY ignore  TYPE RL-InformationResponseList-RL-SetupRspFDD    PRESENCE mandatory
}|
    { ID id-CriticalityDiagnostics                     CRITICALITY ignore  TYPE CriticalityDiagnostics                       PRESENCE optional },
    ...
}

RadioLinkSetupResponseFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-FDD-Information-Response            CRITICALITY ignore  EXTENSION HSDSCH-FDD-Information-Response         PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container{{ RL-InformationResponseItemIE-RL-
SetupRspFDD }}

RL-InformationResponseItemIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationResponseItem-RL-SetupRspFDD           CRITICALITY     ignore      TYPE               RL-InformationResponseItem-RL-
SetupRspFDD     PRESENCE    mandatory}
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    rL-Set-ID                                   RL-Set-ID,
    received-total-wide-band-power              Received-total-wide-band-power-Value,
    diversityIndication                         DiversityIndication-RL-SetupRspFDD,
    not-Used-dSCH-InformationResponseList       NULL                            OPTIONAL,
    sSDT-SupportIndicator                       SSDT-SupportIndicator,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} }
    OPTIONAL,
    ...
}
```

```
RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional
},
    ...
}

DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining                                   Combining-RL-SetupRspFDD,
    nonCombiningOrFirstRL                       NonCombiningOrFirstRL-RL-SetupRspFDD
}

Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    iE-Extensions                               ProtocolExtensionContainer { { Combining-RL-SetupRspFDD-ExtIEs} }     OPTIONAL,
    ...
}

Combining-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponse                     DCH-InformationResponse,
    iE-Extensions                                   ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} }   OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response      CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response          PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE TDD
--
-- **************************************************************

RadioLinkSetupResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkSetupResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupResponseTDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkSetupResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID             CRITICALITY ignore  TYPE CRNC-CommunicationContextID                    PRESENCE mandatory }|
    { ID id-NodeB-CommunicationContextID            CRITICALITY ignore  TYPE NodeB-CommunicationContextID                   PRESENCE mandatory }|
```

```
    { ID id-CommunicationControlPortID              CRITICALITY ignore  TYPE CommunicationControlPortID                    PRESENCE mandatory }|
    { ID id-RL-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  TYPE RL-InformationResponse-RL-SetupRspTDD          PRESENCE optional }|
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore  TYPE CriticalityDiagnostics                       PRESENCE optional },
    ...
}

RadioLinkSetupResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-InformationResponse-LCR-RL-SetupRspTDD   CRITICALITY ignore  EXTENSION RL-InformationResponse-LCR-RL-SetupRspTDD   PRESENCE
    optional    }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-HSDSCH-TDD-Information-Response         CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response    PRESENCE optional },
    ...
}

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    uL-TimeSlot-ISCP-Info                       UL-TimeSlot-ISCP-Info,
    ul-PhysCH-SF-Variation                      UL-PhysCH-SF-Variation,
    dCH-InformationResponseList                 DCH-InformationResponseList-RL-SetupRspTDD                      OPTIONAL,
    dSCH-InformationResponseList                DSCH-InformationResponseList-RL-SetupRspTDD                     OPTIONAL,
    uSCH-InformationResponseList                USCH-InformationResponseList-RL-SetupRspTDD                     OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationResponseList-RL-SetupRspTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RL-InformationResponseList-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container{{ DCH-InformationResponseListIEs-RL-SetupRspTDD }}

DCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse CRITICALITY     ignore      TYPE    DCH-InformationResponse  PRESENCE          mandatory}
 }

DSCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupRspTDD }}

DSCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponse   CRITICALITY ignore   TYPE DSCH-InformationResponse       PRESENCE mandatory }
}

USCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-SetupRspTDD }}

USCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponse   CRITICALITY ignore   TYPE USCH-InformationResponse       PRESENCE mandatory }
}

RL-InformationResponse-LCR-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    uL-TimeSlot-ISCP-LCR-Info                   UL-TimeSlot-ISCP-LCR-Info,
    ul-PhysCH-SF-Variation                      UL-PhysCH-SF-Variation,
    dCH-InformationResponseList                 DCH-InformationResponseList-RL-SetupRspTDD                      OPTIONAL,
    dSCH-InformationResponseList                DSCH-InformationResponseList-RL-SetupRspTDD                     OPTIONAL,
```

```
    uSCH-InformationResponseList                USCH-InformationResponseList-RL-SetupRspTDD                     OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationResponseList-LCR-RL-SetupRspTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RL-InformationResponseList-LCR-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE FDD
--
-- **************************************************************

RadioLinkSetupFailureFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkSetupFailureFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupFailureFDD-Extensions}}                 OPTIONAL,
    ...
}

RadioLinkSetupFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID         CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory }|
    { ID id-NodeB-CommunicationContextID        CRITICALITY ignore  TYPE NodeB-CommunicationContextID               PRESENCE conditional }|
    -- This IE shall be present if at least one of the radio links has been successfully set up
    { ID id-CommunicationControlPortID          CRITICALITY ignore  TYPE CommunicationControlPortID                 PRESENCE optional }|
    { ID id-CauseLevel-RL-SetupFailureFDD       CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureFDD              PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
}

RadioLinkSetupFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureFDD,
    ...
}

GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,
```

```
    successful-RL-InformationRespList-RL-SetupFailureFDD       Successful-RL-InformationRespList-RL-SetupFailureFDD  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response        PRESENCE optional },
    ...
}

Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs))  OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD       CRITICALITY     ignore                    TYPE  Unsuccessful-RL-
InformationRespItem-RL-SetupFailureFDD      PRESENCE    mandatory}
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    cause                                       Cause,
    iE-Extensions                               ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Successful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Successful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Successful-RL-InformationRespItem-RL-SetupFailureFDD         CRITICALITY     ignore                    TYPE  Successful-RL-
InformationRespItem-RL-SetupFailureFDD      PRESENCE    mandatory}
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    rL-Set-ID                                   RL-Set-ID,
    received-total-wide-band-power              Received-total-wide-band-power-Value,
    diversityIndication                         DiversityIndication-RL-SetupFailureFDD,
    not-Used-dSCH-InformationResponseList       NULL                        OPTIONAL,
    not-Used-tFCI2-BearerInformationResponse    NULL                        OPTIONAL,
    sSDT-SupportIndicator                       SSDT-SupportIndicator,
    iE-Extensions                               ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
```

```
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information  PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional
},
    ...
}

DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining                                   Combining-RL-SetupFailureFDD,
    nonCombiningOrFirstRL                       NonCombiningOrFirstRL-RL-SetupFailureFDD
}

Combining-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    iE-Extensions                               ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
 }

CombiningItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponse                     DCH-InformationResponse,
    iE-Extensions                                   ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response      CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response          PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE TDD
--
-- **************************************************************

RadioLinkSetupFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkSetupFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupFailureTDD-Extensions}}                     OPTIONAL,
    ...
}

RadioLinkSetupFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID             PRESENCE mandatory   }|
    { ID    id-CauseLevel-RL-SetupFailureTDD        CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureTDD           PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics               CRITICALITY ignore  TYPE CriticalityDiagnostics                  PRESENCE optional },
    ...
}
```

```
RadioLinkSetupFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureTDD,
    ...
}

GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }          OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD  Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
    iE-Extensions                                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD}
}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD       CRITICALITY ignore      TYPE                Unsuccessful-RL-InformationResp-
RL-SetupFailureTDD      PRESENCE    mandatory   }
}

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
```

```
-- RADIO LINK ADDITION REQUEST FDD
--
-- **************************************************************

RadioLinkAdditionRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkAdditionRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionRequestFDD-Extensions}}                      OPTIONAL,
    ...
}

RadioLinkAdditionRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID            CRITICALITY reject  TYPE NodeB-CommunicationContextID             PRESENCE mandatory   } |
    { ID id-Compressed-Mode-Deactivation-Flag       CRITICALITY reject  TYPE Compressed-Mode-Deactivation-Flag        PRESENCE optional }|
    { ID id-RL-InformationList-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-InformationList-RL-AdditionRqstFDD    PRESENCE mandatory   },
    ...
}

RadioLinkAdditionRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed        CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed
    PRESENCE optional }|
    { ID id-Serving-E-DCH-RL-ID                CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                  PRESENCE optional }|
    { ID id-Serving-Cell-Change-CFN             CRITICALITY reject  EXTENSION CFN                                 PRESENCE optional }|
    { ID id-HS-DSCH-Serving-Cell-Change-Info    CRITICALITY reject  EXTENSION HS-DSCH-Serving-Cell-Change-Info        PRESENCE optional }|
    { ID id-E-DPCH-Information-RL-AdditionReqFDD    CRITICALITY reject  EXTENSION E-DPCH-Information-RL-AdditionReqFDD   PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                   CRITICALITY reject  EXTENSION E-DCH-FDD-Information                  PRESENCE conditional },
    -- This IE shall be present if E-DPCH Information is present
    ...
}

RL-InformationList-RL-AdditionRqstFDD   ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-
AdditionRqstFDD}}

RL-InformationItemIE-RL-AdditionRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-InformationItem-RL-AdditionRqstFDD       PRESENCE mandatory}
}

RL-InformationItem-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    c-ID                                    C-ID,
    frameOffset                             FrameOffset,
    chipOffset                              ChipOffset,
    diversityControlField                   DiversityControlField,
    dl-CodeInformation                      FDD-DL-CodeInformation,
    initialDL-TransmissionPower             DL-Power                        OPTIONAL,
    maximumDL-Power                         DL-Power                        OPTIONAL,
    minimumDL-Power                         DL-Power                        OPTIONAL,
    not-Used-sSDT-CellIdentity              NULL                            OPTIONAL,
    transmitDiversityIndicator              TransmitDiversityIndicator      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-AdditionRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationItem-RL-AdditionRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-DLReferencePower                        CRITICALITY ignore  EXTENSION DL-Power                                  PRESENCE optional
}|
    { ID id-RL-Specific-DCH-Info                    CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info                      PRESENCE optional
}|
    { ID id-DelayedActivation                       CRITICALITY reject  EXTENSION DelayedActivation                         PRESENCE optional
}|
    { ID id-E-DCH-RL-Indication                     CRITICALITY reject  EXTENSION E-DCH-RL-Indication                       PRESENCE optional
}|
    { ID id-RL-Specific-E-DCH-Info                  CRITICALITY ignore  EXTENSION RL-Specific-E-DCH-Info                    PRESENCE optional
}|
    { ID id-SynchronisationIndicator                CRITICALITY ignore  EXTENSION SynchronisationIndicator                  PRESENCE optional
},
    ...
}

E-DPCH-Information-RL-AdditionReqFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                             Max-Set-E-DPDCHs,
    ul-PunctureLimit                            PunctureLimit,
    e-TFCS-Information                          E-TFCS-Information,
    e-TTI                                       E-TTI,
    e-DPCCH-PO                                  E-DPCCH-PO,
    e-RGCH-2-IndexStepThreshold                 E-RGCH-2-IndexStepThreshold,
    e-RGCH-3-IndexStepThreshold                 E-RGCH-3-IndexStepThreshold,
    hARQ-Info-for-E-DCH                         HARQ-Info-for-E-DCH,
    iE-Extensions                               ProtocolExtensionContainer { { E-DPCH-Information-RL-AdditionReqFDD-ExtIEs} }     OPTIONAL,
    ...
}

E-DPCH-Information-RL-AdditionReqFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-HSDSCH-Configured-Indicator     CRITICALITY reject  EXTENSION   HSDSCH-Configured-Indicator                  PRESENCE mandatory},
-- This shall be present for EDPCH configuration with HSDCH
    ...
}


-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST TDD
--
-- **************************************************************

RadioLinkAdditionRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkAdditionRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionRequestTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkAdditionRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                    CRITICALITY reject  TYPE NodeB-CommunicationContextID                PRESENCE
mandatory }|
    { ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY reject  TYPE UL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE optional
}|
    { ID id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY reject  TYPE DL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE optional
}|
```

```
    { ID id-RL-Information-RL-AdditionRqstTDD              CRITICALITY reject  TYPE RL-Information-RL-AdditionRqstTDD           PRESENCE
mandatory },
    ...
}

RadioLinkAdditionRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-TDD-Information          CRITICALITY reject      EXTENSION HSDSCH-TDD-Information               PRESENCE optional }|
    { ID id-HSDSCH-RNTI                     CRITICALITY reject      EXTENSION HSDSCH-RNTI                          PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                   CRITICALITY reject      EXTENSION RL-ID                                PRESENCE optional },
    ...
}

UL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-AdditionRqstTDD

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                  CCTrCH-ID,
    uL-DPCH-Information                        UL-DPCH-InformationList-RL-AdditionRqstTDD      OPTIONAL, -- Applicable to 3.84cps TDD only
    iE-Extensions                              ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD   CRITICALITY notify  EXTENSION   UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD
        PRESENCE    optional }| -- Applicable to 1.28cps TDD only
    { ID    id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD    CRITICALITY reject  EXTENSION   TDD-TPC-UplinkStepSize-LCR  PRESENCE optional },
     -- Applicable to 1.28cps TDD only
    ...
}

UL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationItemIE-RL-AdditionRqstTDD }}

UL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-UL-DPCH-InformationItem-RL-AdditionRqstTDD           CRITICALITY     notify                          TYPE  UL-DPCH-InformationItem-
RL-AdditionRqstTDD          PRESENCE    optional}   -- For 3.84Mcps TDD only
}

UL-DPCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                       RepetitionPeriod,
    repetitionLength                       RepetitionLength,
    tdd-DPCHOffset                         TDD-DPCHOffset,
    uL-Timeslot-Information                UL-Timeslot-Information,
    iE-Extensions                          ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-AdditionRqstTDD

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                      CCTrCH-ID,
```

```
    dL-DPCH-Information            DL-DPCH-InformationList-RL-AdditionRqstTDD      OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                  ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD   CRITICALITY notify      EXTENSION DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD
        PRESENCE    optional }| -- Applicable to 1.28Mcps TDD only
    { ID id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD          CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional }|
    { ID id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD         CRITICALITY reject      EXTENSION TDD-TPC-DownlinkStepSize  PRESENCE optional }|
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD          CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional }|
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD          CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional },
    ...
}

DL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationItemIE-RL-AdditionRqstTDD }}

DL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-DL-DPCH-InformationItem-RL-AdditionRqstTDD       CRITICALITY     notify      TYPE                    DL-DPCH-InformationItem-RL-
AdditionRqstTDD     PRESENCE mandatory}
}

DL-DPCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-Information             DL-Timeslot-Information,
    iE-Extensions                               ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    c-ID                                    C-ID,
    frameOffset                             FrameOffset,
    diversityControlField                   DiversityControlField,
    initial-DL-Transmission-Power           DL-Power            OPTIONAL,
    maximumDL-Power                         DL-Power            OPTIONAL,
    minimumDL-Power                         DL-Power            OPTIONAL,
    dL-TimeSlotISCPInfo                     DL-TimeslotISCPInfo OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                           ProtocolExtensionContainer { { RL-information-RL-AdditionRqstTDD-ExtIEs} }        OPTIONAL,
    ...
 }

RL-information-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD        CRITICALITY     reject                      EXTENSION   DL-
TimeslotISCPInfoLCR         PRESENCE    optional }| -- Applicable to 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info                PRESENCE    optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
```

```
    { ID id-UL-Synchronisation-Parameters-LCR          CRITICALITY reject      EXTENSION   UL-Synchronisation-Parameters-LCR     PRESENCE
    optional    },  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    ...
}

UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-TimeslotLCR-Information              UL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-TimeslotLCR-Information              DL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- **************************************************************

RadioLinkAdditionResponseFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkAdditionResponseFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionResponseFDD-Extensions}}                     OPTIONAL,
    ...
}

RadioLinkAdditionResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                     CRITICALITY ignore  TYPE CRNC-CommunicationContextID                 PRESENCE
mandatory }|
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-AdditionRspFDD PRESENCE
mandatory }|
    { ID id-CriticalityDiagnostics                          CRITICALITY ignore  TYPE CriticalityDiagnostics                      PRESENCE optional
},
    ...
}

RadioLinkAdditionResponseFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
{ ID id-HS-DSCH-Serving-Cell-Change-Info-Response           CRITICALITY ignore  EXTENSION HS-DSCH-Serving-Cell-Change-Info-Response
    PRESENCE optional }|
{ ID id-E-DCH-Serving-Cell-Change-Info-Response             CRITICALITY ignore  EXTENSION E-DCH-Serving-Cell-Change-Info-Response
    PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-
RL-AdditionRspFDD }}

RL-InformationResponseItemIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD    CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-AdditionRspFDD PRESENCE
mandatory }
}

RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    rL-Set-ID                       RL-Set-ID,
    received-total-wide-band-power  Received-total-wide-band-power-Value,
    diversityIndication             DiversityIndication-RL-AdditionRspFDD,
    sSDT-SupportIndicator           SSDT-SupportIndicator,
    iE-Extensions                   ProtocolExtensionContainer { { RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} }     OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                               PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                PRESENCE optional
},
    ...
}

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining                                   Combining-RL-AdditionRspFDD,
    non-combining                               Non-Combining-RL-AdditionRspFDD
}

Combining-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    iE-Extensions                               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} }   OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

Non-Combining-RL-AdditionRspFDD ::= SEQUENCE {
```

```
    dCH-InformationResponse                    DCH-InformationResponse,
    iE-Extensions                                  ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspFDD-ExtIEs} }     OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- **************************************************************

RadioLinkAdditionResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkAdditionResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionResponseTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY ignore  TYPE    CRNC-CommunicationContextID               PRESENCE
    mandatory   }|
    { ID    id-RL-InformationResponse-RL-AdditionRspTDD     CRITICALITY ignore  TYPE    RL-InformationResponse-RL-AdditionRspTDD  PRESENCE
    optional    }|      -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
    { ID    id-CriticalityDiagnostics                       CRITICALITY ignore  TYPE    CriticalityDiagnostics                    PRESENCE optional
    },
    ...
}

RadioLinkAdditionResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-InformationResponse-LCR-RL-AdditionRspTDD        CRITICALITY ignore          EXTENSION RL-InformationResponse-LCR-RL-AdditionRspTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-HSDSCH-TDD-Information-Response                     CRITICALITY ignore          EXTENSION HSDSCH-TDD-Information-Response   PRESENCE
optional},
...
}

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    uL-TimeSlot-ISCP-Info                   UL-TimeSlot-ISCP-Info,
    ul-PhysCH-SF-Variation                  UL-PhysCH-SF-Variation,
    dCH-Information                         DCH-Information-RL-AdditionRspTDD               OPTIONAL,
    dSCH-InformationResponseList            DSCH-InformationResponseList-RL-AdditionRspTDD                  OPTIONAL,
    uSCH-InformationResponseList            USCH-InformationResponseList-RL-AdditionRspTDD                  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationResponse-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication                DiversityIndication-RL-AdditionRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-Information-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining                                Combining-RL-AdditionRspTDD,    -- Indicates whether the old Transport Bearer shall be reused or
not
    non-Combining                            Non-Combining-RL-AdditionRspTDD
}

Combining-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                    RL-ID,  -- Reference RL
    iE-Extensions                            ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Non-Combining-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-InformationResponse                DCH-InformationResponse,
    iE-Extensions                            ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-AdditionRspTDD }}

DSCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponse   CRITICALITY ignore   TYPE DSCH-InformationResponse       PRESENCE mandatory }
}

USCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-AdditionRspTDD }}

USCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponse   CRITICALITY ignore   TYPE USCH-InformationResponse       PRESENCE mandatory }
}

RL-InformationResponse-LCR-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                    RL-ID,
    uL-TimeSlot-ISCP-InfoLCR                 UL-TimeSlot-ISCP-LCR-Info,
    ul-PhysCH-SF-Variation                   UL-PhysCH-SF-Variation,
    dCH-Information                          DCH-Information-RL-AdditionRspTDD              OPTIONAL,
```

```
    dSCH-InformationResponseList              DSCH-InformationResponseList-RL-AdditionRspTDD                    OPTIONAL,
    uSCH-InformationResponseList              USCH-InformationResponseList-RL-AdditionRspTDD                    OPTIONAL,
    iE-Extensions                             ProtocolExtensionContainer { { RL-InformationResponse-LCR-RL-AdditionRspTDD-ExtIEs} }   OPTIONAL,
    ...
}

RL-InformationResponse-LCR-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- **************************************************************

RadioLinkAdditionFailureFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkAdditionFailureFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionFailureFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkAdditionFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID             CRITICALITY ignore      TYPE CRNC-CommunicationContextID                  PRESENCE mandatory
}|
    { ID id-CauseLevel-RL-AdditionFailureFDD        CRITICALITY ignore      TYPE CauseLevel-RL-AdditionFailureFDD             PRESENCE mandatory
}|
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore      TYPE CriticalityDiagnostics                       PRESENCE optional },
    ...
}

RadioLinkAdditionFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-HS-DSCH-Serving-Cell-Change-Info-Response           CRITICALITY ignore  EXTENSION HS-DSCH-Serving-Cell-Change-Info-Response
    PRESENCE optional }|
{ ID id-E-DCH-Serving-Cell-Change-Info-Response             CRITICALITY ignore  EXTENSION E-DCH-Serving-Cell-Change-Info-Response
    PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureFDD,
    ...
}

GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD       Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD         Successful-RL-InformationRespList-RL-AdditionFailureFDD             OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE  (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD        CRITICALITY     ignore                TYPE  Unsuccessful-RL-
InformationRespItem-RL-AdditionFailureFDD   PRESENCE    mandatory}
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    cause                                       Cause,
    iE-Extensions                               ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
            OPTIONAL,
    ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Successful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-2)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Successful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD      CRITICALITY     ignore                    TYPE  Successful-RL-
InformationRespItem-RL-AdditionFailureFDD       PRESENCE    mandatory}
}

Successful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    rL-Set-ID                                   RL-Set-ID,
    received-total-wide-band-power              Received-total-wide-band-power-Value,
    diversityIndication                         DiversityIndication-RL-AdditionFailureFDD,
    sSDT-SupportIndicator                       SSDT-SupportIndicator,
    iE-Extensions                               ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
```

```
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information  PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                 PRESENCE optional
},
    ...
}

DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining                       Combining-RL-AdditionFailureFDD,
    non-Combining                   Non-Combining-RL-AdditionFailureFDD
}

Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    iE-Extensions                           ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
 }

CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

Non-Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponse                 DCH-InformationResponse,
    iE-Extensions                           ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs} }        OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE TDD
--
-- **************************************************************

RadioLinkAdditionFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkAdditionFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionFailureTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkAdditionFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID              CRITICALITY ignore      TYPE CRNC-CommunicationContextID         PRESENCE mandatory }|
    { ID    id-CauseLevel-RL-AdditionFailureTDD         CRITICALITY ignore      TYPE CauseLevel-RL-AdditionFailureTDD    PRESENCE mandatory }|
    { ID    id-CriticalityDiagnostics                   CRITICALITY ignore      TYPE CriticalityDiagnostics              PRESENCE optional },
    ...
}
```

```
RadioLinkAdditionFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureTDD,
    ...
}

GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }       OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD   Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
    iE-Extensions                                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
        OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD   CRITICALITY ignore  TYPE Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD
    PRESENCE mandatory }
}

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    cause                               Cause,
    iE-Extensions                       ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
```

```
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationPrepareFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationPrepareFDD-Extensions}}            OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                    CRITICALITY reject  TYPE NodeB-CommunicationContextID                    PRESENCE
mandatory }|
    { ID id-UL-DPCH-Information-RL-ReconfPrepFDD            CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfPrepFDD            PRESENCE
optional }|
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD            CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfPrepFDD            PRESENCE
optional }|
    { ID id-FDD-DCHs-to-Modify                              CRITICALITY reject  TYPE FDD-DCHs-to-Modify                              PRESENCE
optional }|
    { ID id-DCHs-to-Add-FDD                                 CRITICALITY reject  TYPE DCH-FDD-Information                             PRESENCE
optional }|
    { ID id-DCH-DeleteList-RL-ReconfPrepFDD                 CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepFDD                 PRESENCE
optional }|
    { ID id-RL-InformationList-RL-ReconfPrepFDD             CRITICALITY reject  TYPE RL-InformationList-RL-ReconfPrepFDD             PRESENCE
optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information   PRESENCE
optional },
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SignallingBearerRequestIndicator        CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator             PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                  CRITICALITY reject  EXTENSION HSDSCH-FDD-Information                      PRESENCE optional }|
    { ID id-HSDSCH-Information-to-Modify            CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify                PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Add                 CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information                PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Delete              CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete                  PRESENCE optional }|
    { ID id-HSDSCH-RNTI                             CRITICALITY reject  EXTENSION HSDSCH-RNTI                                 PRESENCE conditional
}|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                           CRITICALITY reject  EXTENSION RL-ID                                       PRESENCE optional }|
    { ID id-E-DPCH-Information-RL-ReconfPrepFDD     CRITICALITY reject  EXTENSION E-DPCH-Information-RL-ReconfPrepFDD         PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                   CRITICALITY reject  EXTENSION E-DCH-FDD-Information                       PRESENCE optional }|
    { ID id-E-DCH-FDD-Information-to-Modify         CRITICALITY reject  EXTENSION E-DCH-FDD-Information-to-Modify             PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Add                  CRITICALITY reject  EXTENSION E-DCH-MACdFlows-Information                 PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Delete               CRITICALITY reject  EXTENSION E-DCH-MACdFlows-to-Delete                   PRESENCE optional }|
    { ID id-Serving-E-DCH-RL-ID                     CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                         PRESENCE optional }|
    { ID id-F-DPCH-Information-RL-ReconfPrepFDD     CRITICALITY reject  EXTENSION F-DPCH-Information-RL-ReconfPrepFDD         PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode                   UL-ScramblingCode                   OPTIONAL,
    ul-SIR-Target                       UL-SIR                              OPTIONAL,
    minUL-ChannelisationCodeLength      MinUL-ChannelisationCodeLength      OPTIONAL,
```

```
    maxNrOfUL-DPDCHs                            MaxNrOfUL-DPDCHs                    OPTIONAL,
    -- This IE shall be present if minUL-ChannelisationCodeLength Ie is set to 4
    ul-PunctureLimit                            PunctureLimit                       OPTIONAL,
    tFCS                                        TFCS                                OPTIONAL,
    ul-DPCCH-SlotFormat                         UL-DPCCH-SlotFormat                 OPTIONAL,
    diversityMode                               DiversityMode                       OPTIONAL,
    not-Used-sSDT-CellIDLength                  NULL                                OPTIONAL,
    not-Used-s-FieldLength                      NULL                                OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPDCH-Indicator-For-E-DCH-Operation  CRITICALITY reject  EXTENSION UL-DPDCH-Indicator-For-E-DCH-Operation       PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                                        TFCS                                OPTIONAL,
    dl-DPCH-SlotFormat                          DL-DPCH-SlotFormat                  OPTIONAL,
    tFCI-SignallingMode                         TFCI-SignallingMode                 OPTIONAL,
    tFCI-Presence                               TFCI-Presence                       OPTIONAL,
    -- This IE shall be present if the DL DPCH Slot Format IE is set to any of the values from 12 to 16
    multiplexingPosition                        MultiplexingPosition                OPTIONAL,
    not-Used-pDSCH-CodeMapping                  NULL                                OPTIONAL,
    not-Used-pDSCH-RL-ID                        NULL                                OPTIONAL,
    limitedPowerIncrease                        LimitedPowerIncrease                OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-Power-Information-RL-ReconfPrepFDD  CRITICALITY reject  EXTENSION DL-DPCH-Power-Information-RL-ReconfPrepFDD  PRESENCE optional
},
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation                  PowerOffsetInformation-RL-ReconfPrepFDD,
    fdd-TPC-DownlinkStepSize                FDD-TPC-DownlinkStepSize,
    innerLoopDLPCStatus                     InnerLoopDLPCStatus,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs } }        OPTIONAL,
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO2-ForTPC-Bits                         PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
```

```
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-ReconfPrepFDD }}

RL-InformationItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-ReconfPrepFDD          CRITICALITY     reject          TYPE                    RL-InformationItem-RL-
ReconfPrepFDD       PRESENCE    mandatory}
}

RL-InformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    dl-CodeInformation                  FDD-DL-CodeInformation      OPTIONAL,
    maxDL-Power                             DL-Power                                OPTIONAL,
    minDL-Power                             DL-Power                                OPTIONAL,
    not-Used-sSDT-Indication                    NULL                                OPTIONAL,
    not-Used-sSDT-Cell-Identity                 NULL                                OPTIONAL,
    transmitDiversityIndicator              TransmitDiversityIndicator              OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and it is not set to 'none'
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfPrepFDD-ExtIEs} }     OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower                    CRITICALITY ignore  EXTENSION DL-Power                                  PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info                CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info                      PRESENCE optional }|
    { ID id-DL-DPCH-TimingAdjustment            CRITICALITY reject  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-for-Channel-Estimation      CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-for-Channel-Estimation
    PRESENCE optional}|
    { ID id-Secondary-CPICH-Information-Change   CRITICALITY ignore  EXTENSION Secondary-CPICH-Information-Change        PRESENCE optional }|
    { ID id-E-DCH-RL-Indication                 CRITICALITY reject  EXTENSION E-DCH-RL-Indication                       PRESENCE optional }|
    { ID id-RL-Specific-E-DCH-Info              CRITICALITY ignore  EXTENSION RL-Specific-E-DCH-Info                    PRESENCE optional },
    ...
}

E-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                         Max-Set-E-DPDCHs                                                            OPTIONAL,
    ul-PunctureLimit                        PunctureLimit                                                               OPTIONAL,
```

```
    e-TFCS-Information                          E-TFCS-Information                                                   OPTIONAL,
    e-TTI                                   E-TTI                                                               OPTIONAL,
    e-DPCCH-PO                              E-DPCCH-PO                                                          OPTIONAL,
    e-RGCH-2-IndexStepThreshold             E-RGCH-2-IndexStepThreshold                                         OPTIONAL,
    e-RGCH-3-IndexStepThreshold             E-RGCH-3-IndexStepThreshold                                         OPTIONAL,
    hARQ-Info-for-E-DCH                     HARQ-Info-for-E-DCH                                                 OPTIONAL,
    hSDSCH-Configured-Indicator             HSDSCH-Configured-Indicator                                         OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

E-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation              PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD,
    fdd-TPC-DownlinkStepSize            FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease                LimitedPowerIncrease,
    innerLoopDLPCStatus                 InnerLoopDLPCStatus,
    iE-Extensions                       ProtocolExtensionContainer { { F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }             OPTIONAL,
    ...
}

F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD ::= SEQUENCE {
    pO2-ForTPC-Bits                     PowerOffset,
    iE-Extensions                       ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE TDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationPrepareTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationPrepareTDD-Extensions}}            OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                    CRITICALITY reject  TYPE NodeB-CommunicationContextID          PRESENCE mandatory
}|
```

```
    { ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD      CRITICALITY reject  TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD   CRITICALITY reject  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD   CRITICALITY reject  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD      CRITICALITY reject  TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional   }|
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD   CRITICALITY reject  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD   CRITICALITY reject  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-TDD-DCHs-to-Modify                                 CRITICALITY reject  TYPE TDD-DCHs-to-Modify                    PRESENCE optional }|
    { ID id-DCHs-to-Add-TDD                                    CRITICALITY reject  TYPE DCH-TDD-Information                   PRESENCE optional }|
    { ID id-DCH-DeleteList-RL-ReconfPrepTDD                    CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepTDD       PRESENCE optional }|
    { ID id-DSCH-Information-ModifyList-RL-ReconfPrepTDD       CRITICALITY reject  TYPE DSCH-Information-ModifyList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-DSCHs-to-Add-TDD                                   CRITICALITY reject  TYPE DSCH-TDD-Information                  PRESENCE optional }|
    { ID id-DSCH-Information-DeleteList-RL-ReconfPrepTDD       CRITICALITY reject  TYPE DSCH-Information-DeleteList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-USCH-Information-ModifyList-RL-ReconfPrepTDD       CRITICALITY reject  TYPE USCH-Information-ModifyList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-USCH-Information-Add                               CRITICALITY reject  TYPE USCH-Information                      PRESENCE optional }|
    { ID id-USCH-Information-DeleteList-RL-ReconfPrepTDD       CRITICALITY reject  TYPE USCH-Information-DeleteList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-RL-Information-RL-ReconfPrepTDD                    CRITICALITY reject  TYPE RL-Information-RL-ReconfPrepTDD       PRESENCE optional },
-- This RL Information is the for the 1st RL IE repetition
    ...
}

RadioLinkReconfigurationPrepareTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-SignallingBearerRequestIndicator     CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator          PRESENCE optional }|
    { ID    id-HSDSCH-TDD-Information               CRITICALITY reject  EXTENSION HSDSCH-TDD-Information                PRESENCE optional }|
    { ID    id-HSDSCH-Information-to-Modify         CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify          PRESENCE optional }|
    { ID    id-HSDSCH-MACdFlows-to-Add              CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information          PRESENCE optional }|
    { ID    id-HSDSCH-MACdFlows-to-Delete           CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete            PRESENCE optional }|
    { ID    id-HSDSCH-RNTI                          CRITICALITY reject  EXTENSION HSDSCH-RNTI                           PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID    id-HSPDSCH-RL-ID                        CRITICALITY reject  EXTENSION RL-ID                                 PRESENCE optional }|
    { ID    id-PDSCH-RL-ID                          CRITICALITY ignore  EXTENSION RL-ID                                 PRESENCE optional }|
    { ID    id-multiple-RL-Information-RL-ReconfPrepTDD     CRITICALITY reject  EXTENSION MultipleRL-Information-RL-ReconfPrepTDD    PRESENCE
optional    },
-- This RL Information is the for the 2nd and beyond repetition of RL information,
    ...
}

UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    tFCS                                        TFCS,
    tFCI-Coding                                 TFCI-Coding,
    punctureLimit                               PunctureLimit,
    ul-DPCH-InformationList                     UL-DPCH-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
```

```
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    iE-Extensions                           ProtocolExtensionContainer { { UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD   CRITICALITY reject  EXTENSION UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    { ID id-UL-SIRTarget                                        CRITICALITY reject  EXTENSION UL-SIR              PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
-- This Information is the for the first RL repetition, SIR Target information for RL repetitions 2 and on, should be defined in MultipleRL-UL-
DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR  PRESENCE optional
    }|
-- This Information is the for the first RL repetition, TPCinformation for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
    { ID id-RL-ID                                               CRITICALITY ignore  EXTENSION RL-ID               PRESENCE optional }|
-- This is the RL ID for the first RL repetition
    { ID id-multipleRL-ul-DPCH-InformationList                  CRITICALITY reject  EXTENSION MultipleRL-UL-DPCH-InformationAddList-RL-
ReconfPrepTDD   PRESENCE optional },
-- This Information is the for the 2nd and beyond RL repetition,
    ...
}

MultipleRL-UL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-UL-DPCH-InformationAddListIE-RL-
ReconfPrepTDD
--Includes the 2nd through the max number of radio link repetitions.

MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    ul-DPCH-InformationList                 UL-DPCH-InformationAddList-RL-ReconfPrepTDD     OPTIONAL,
    ul-DPCH-InformationListLCR              UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
    ul-sir-target                           UL-SIR                                          OPTIONAL,
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
    tDD-TPC-UplinkStepSize-LCR              TDD-TPC-UplinkStepSize-LCR                      OPTIONAL,
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
    rL-ID                                   RL-ID       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,

...
}

MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD }}

UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD   CRITICALITY reject      TYPE UL-DPCH-InformationAddItem-RL-ReconfPrepTDD    PRESENCE
mandatory }
}

UL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information                 UL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-InformationLCR              UL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    tFCS                                        TFCS                                                    OPTIONAL,
    tFCI-Coding                                 TFCI-Coding                                             OPTIONAL,
    punctureLimit                               PunctureLimit                                           OPTIONAL,
    ul-DPCH-InformationAddList                  UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD      OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    ul-DPCH-InformationModifyList               UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD    OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    ul-DPCH-InformationDeleteList               UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD    OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    iE-Extensions                               ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationModify-AddList    CRITICALITY reject     EXTENSION    UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
```

```
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    { ID id-UL-SIRTarget        CRITICALITY reject      EXTENSION       UL-SIR      PRESENCE optional              }|
    -- Applicable to 1.28Mcps TDD only.
-- This Information is the for the first RL repetition, SIR Target information for RL repetitions 2 and on, should be defined in MultipleRL-UL-
DPCH-InformationModifyList-RL-ReconfPrepTDD
    { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD           CRITICALITY reject    EXTENSION   TDD-TPC-UplinkStepSize-LCR
    PRESENCE optional   }|
    -- Applicable to 1.28Mcps TDD only
-- This Information is the for the first RL repetition, Step Size information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    { ID id-RL-ID                                   CRITICALITY ignore      EXTENSION       RL-ID                 PRESENCE optional }|
-- This is the RL ID for the first RL repetition
    { ID id-multipleRL-ul-DPCH-InformationModifyList    CRITICALITY reject      EXTENSION       MultipleRL-UL-DPCH-InformationModifyList-RL-
ReconfPrepTDD   PRESENCE optional   },
-- This DPCH Information is the for the 2nd and beyond RL repetition,
    ...
}

UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}

UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD   CRITICALITY reject       TYPE UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
        PRESENCE mandatory }
}

MultipleRL-UL-DPCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-UL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD
--Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    ul-DPCH-InformationAddList                  UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD                OPTIONAL,
    ul-DPCH-InformationModifyList               UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD             OPTIONAL,
    ul-DPCH-InformationDeleteList               UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD             OPTIONAL,
    ul-DPCH-InformationAddListLCR               UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD            OPTIONAL,
    ul-sir-target                               UL-SIR      OPTIONAL,
    tDD-TPC-UplinkStepSize-LCR                  TDD-TPC-UplinkStepSize-LCR  OPTIONAL,
    rL-ID                                       RL-ID       OPTIONAL,
-- This DPCH Information is the for the 2nd and beyond RL repetitions,
    iE-Extensions                               ProtocolExtensionContainer { { MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs}
}       OPTIONAL,
...
}

MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information                 UL-Timeslot-Information,
```

```
    iE-Extensions                       ProtocolExtensionContainer { { UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-DPCHOffset                      TDD-DPCHOffset,
    uL-Timeslot-InformationLCR          UL-TimeslotLCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { UL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD
}}

UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD   CRITICALITY reject       TYPE UL-DPCH-InformationModify-ModifyItem-RL-
ReconfPrepTDD       PRESENCE mandatory }
}

UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod    OPTIONAL,
    repetitionLength                    RepetitionLength    OPTIONAL,
    tdd-DPCHOffset                      TDD-DPCHOffset      OPTIONAL,
    uL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD             UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD
    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD     CRITICALITY reject      EXTENSION   UL-TimeslotLCR-InformationModify-ModifyList-RL-
ReconfPrepTDD       PRESENCE optional },    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD   -- Applicable to 3.84Mcps TDD only

UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType           MidambleShiftAndBurstType       OPTIONAL,
```

```
    tFCI-Presence                           TFCI-Presence       OPTIONAL,
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD               UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotLCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfPrepTDD -- Applicable to 1.28Mcps TDD only

UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR    OPTIONAL,
    tFCI-Presence                           TFCI-Presence       OPTIONAL,
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR                UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,
    ...
}

UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDDLCR

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR-ExtIEs} }
    OPTIONAL,
    ...
}
```

```
UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD  CRITICALITY reject   EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR   PRESENCE
optional},

    ...
}

UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD
}}

UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD   CRITICALITY reject        TYPE UL-DPCH-InformationModify-DeleteListIE-RL-
ReconfPrepTDD       PRESENCE mandatory }
}

UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationModify-DeleteItem-RL-
ReconfPrepTDD

UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    tFCS                                        TFCS,
    tFCI-Coding                                 TFCI-Coding,
    punctureLimit                               PunctureLimit,
    cCTrCH-TPCList                              CCTrCH-TPCAddList-RL-ReconfPrepTDD                          OPTIONAL,
    dl-DPCH-InformationList                     DL-DPCH-InformationAddList-RL-ReconfPrepTDD                 OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationAddList-RL-ReconfPrepTDD
```

```
    iE-Extensions                                   ProtocolExtensionContainer { { DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD             CRITICALITY reject  EXTENSION DL-DPCH-LCR-InformationAddList-RL-
ReconfPrepTDD       PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD                    CRITICALITY ignore  EXTENSION DL-Power      PRESENCE optional }|
-- This DL Power inforrmation is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in
MultipleRL-DL-DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD    CRITICALITY reject  EXTENSION  TDD-TPC-DownlinkStepSize PRESENCE optional}|
-- This DL step size is the for the first RL repetition, DL step size information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD     CRITICALITY ignore  EXTENSION DL-Power      PRESENCE optional }|
-- This DL Power inforrmation is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in
MultipleRL-DL-DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD     CRITICALITY ignore  EXTENSION DL-Power      PRESENCE optional }|
-- This DL Power inforrmation is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in
MultipleRL-DL-DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-RL-ID                                                       CRITICALITY ignore  EXTENSION RL-ID         PRESENCE optional }|
-- This is the RL ID for the first RL repetition
    { ID id-multipleRL-ul-DPCH-InformationList                          CRITICALITY reject  EXTENSION MultipleRL-DL-DPCH-InformationAddList-RL-
ReconfPrepTDD   PRESENCE optional   },
-- This DPCH Information is the for the 2nd and beyond RL repetition,
    ...
}

MultipleRL-DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-DL-DPCH-InformationAddListIE-RL-
ReconfPrepTDD
--Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    dl-DPCH-InformationList                                 DL-DPCH-InformationAddList-RL-ReconfPrepTDD         OPTIONAL,
    dl-DPCH-InformationListLCR                              DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD     OPTIONAL,
    cCTrCH-Initial-DL-Power                                 DL-Power                                            OPTIONAL,
    tDD-TPC-DownlinkStepSize                                TDD-TPC-DownlinkStepSize                            OPTIONAL,
    cCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD     DL-Power                                        OPTIONAL,
    cCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD     DL-Power                                        OPTIONAL,
    rL-ID                                                   RL-ID       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,
    ...
}

MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD      -- Applicable to 3.84Mcps TDD
only
```

```
CCTrCH-TPCAddItem-RL-ReconfPrepTDD   ::= SEQUENCE {
    cCTrCH-ID                           CCTrCH-ID,
    iE-Extensions                       ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD }}

DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD   CRITICALITY reject      TYPE DL-DPCH-InformationAddItem-RL-ReconfPrepTDD    PRESENCE
mandatory }
}

DL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-DPCHOffset                      TDD-DPCHOffset,
    dL-Timeslot-Information             DL-Timeslot-Information,
    iE-Extensions                       ProtocolExtensionContainer { { DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-DPCHOffset                      TDD-DPCHOffset,
    dL-Timeslot-InformationLCR          DL-TimeslotLCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { DL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    tFCS                                    TFCS                                                    OPTIONAL,
    tFCI-Coding                             TFCI-Coding                                             OPTIONAL,
    punctureLimit                           PunctureLimit                                           OPTIONAL,
    cCTrCH-TPCList                          CCTrCH-TPCModifyList-RL-ReconfPrepTDD                   OPTIONAL,
    dl-DPCH-InformationAddList              DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD      OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
```

```
    dl-DPCH-InformationModifyList                  DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD          OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    dl-DPCH-InformationDeleteList                  DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD          OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    iE-Extensions                                  ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD CRITICALITY reject       EXTENSION              DL-DPCH-LCR-InformationModify-
AddList-RL-ReconfPrepTDD        PRESENCE optional }|  -- Applicable to 1.28Mcps TDD only
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    { ID id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD CRITICALITY reject  EXTENSION TDD-TPC-DownlinkStepSize PRESENCE optional}|
-- This Step Size Information is the for the first RL repetition, step size information for RL repetitions 2 and on, should be defined in
MultipleRL-DL-DPCH-InformationModifyList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD      CRITICALITY ignore  EXTENSION DL-Power    PRESENCE optional }|
-- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
DPCH-InformationModifyList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD      CRITICALITY ignore  EXTENSION DL-Power    PRESENCE optional }|
-- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
DPCH-InformationModifyList-RL-ReconfPrepTDD
    { ID id-RL-ID       CRITICALITY ignore      EXTENSION       RL-ID       PRESENCE optional   }|
-- This is the RL ID for the first RL repetition
    { ID id-multipleRL-dl-DPCH-InformationModifyList    CRITICALITY reject      EXTENSION       MultipleRL-DL-DPCH-InformationModifyList-RL-
ReconfPrepTDD   PRESENCE optional   },
-- This DPCH Information is the for the 2nd and beyond RL repetitions,
    ...
}

MultipleRL-DL-DPCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-DL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD
--Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-DL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    dl-DPCH-InformationAddList                                  DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD      OPTIONAL,
    dl-DPCH-InformationModifyList                               DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD   OPTIONAL,
    dl-DPCH-InformationDeleteList                               DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD   OPTIONAL,
    dl-DPCH-InformationAddListLCR                               DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD  OPTIONAL,
    tDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD     TDD-TPC-DownlinkStepSize                                OPTIONAL,
    cCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD      DL-Power                                                OPTIONAL,
    cCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD      DL-Power                                                OPTIONAL,
    rL-ID                                                       RL-ID       OPTIONAL,
    iE-Extensions                                               ProtocolExtensionContainer { { MultipleRL-DL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD-ExtIEs} }     OPTIONAL,
...
}

MultipleRL-DL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}
-- Applicable to 3.84Mcps TDD only

DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD   CRITICALITY reject       TYPE DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
        PRESENCE mandatory }
}

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-Information                 DL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-InformationLCR              DL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD
}}

DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD   CRITICALITY reject       TYPE DL-DPCH-InformationModify-ModifyItem-RL-
ReconfPrepTDD       PRESENCE mandatory }
}

DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod            OPTIONAL,
    repetitionLength                        RepetitionLength            OPTIONAL,
    tdd-DPCHOffset                          TDD-DPCHOffset              OPTIONAL,
    dL-Timeslot-InformationAddModify-ModifyList-RL-ReconfPrepTDD       DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD   CRITICALITY reject                         EXTENSION       DL-Timeslot-
LCR-InformationModify-ModifyList-RL-ReconfPrepTDD       PRESENCE optional },
    ...
}

DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType           OPTIONAL,
    tFCI-Presence                           TFCI-Presence           OPTIONAL,
    dL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD               DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD        OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD  CRITICALITY ignore EXTENSION DL-Power     PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD  CRITICALITY ignore  EXTENSION DL-Power    PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}
DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfPrepTDD

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR        OPTIONAL,
    tFCI-Presence                       TFCI-Presence           OPTIONAL,
    dL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD              DL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD
    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
DL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF DL-Code-LCR-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    tdd-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD   CRITICALITY    reject   EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR   PRESENCE
optional},
    ...
}

DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD
}}

DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD   CRITICALITY reject        TYPE DL-DPCH-InformationModify-DeleteListIE-RL-
ReconfPrepTDD       PRESENCE mandatory }
}

DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationModify-DeleteItem-RL-
ReconfPrepTDD

DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD

DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-ModifyItem-RL-ReconfPrepTDD

DSCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID                                 DSCH-ID,
    cCTrCH-ID                               CCTrCH-ID               OPTIONAL,
    -- DL CCTrCH in which the DSCH is mapped
    transportFormatSet                      TransportFormatSet      OPTIONAL,
    allocationRetentionPriority             AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                   FrameHandlingPriority   OPTIONAL,
    toAWS                                   ToAWS                   OPTIONAL,
    toAWE                                   ToAWE                   OPTIONAL,
    transportBearerRequestIndicator         TransportBearerRequestIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...
 }

DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                   CRITICALITY ignore  EXTENSION BindingID     PRESENCE    optional           }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress       CRITICALITY ignore  EXTENSION TransportLayerAddress PRESENCE               optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

DSCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-DeleteItem-RL-ReconfPrepTDD
```

```
DSCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID                                 DSCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...
}

DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-ModifyItem-RL-ReconfPrepTDD

USCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                                 USCH-ID,
    transportFormatSet                      TransportFormatSet          OPTIONAL,
    allocationRetentionPriority             AllocationRetentionPriority OPTIONAL,
    cCTrCH-ID                               CCTrCH-ID                   OPTIONAL,   -- UL CCTrCH in which the USCH is mapped
    transportBearerRequestIndicator         TransportBearerRequestIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...
}

USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                       CRITICALITY ignore      EXTENSION BindingID         PRESENCE optional  }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress           CRITICALITY ignore      EXTENSION TransportLayerAddress                PRESENCE optional}|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                          CRITICALITY ignore      EXTENSION   TnlQos      PRESENCE optional      },
    ...
}

USCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-DeleteItem-RL-ReconfPrepTDD

USCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                                 USCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...

}

USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-Information-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-Information-RL-ReconfPrepTDD
--Includes the 2nd through the max number of radio link information repetitions.

RL-Information-RL-ReconfPrepTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    maxDL-Power                             DL-Power            OPTIONAL,
    minDL-Power                             DL-Power            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-Information-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}
```

```
RL-Information-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-InitDL-Power                              CRITICALITY ignore  EXTENSION DL-Power                          PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info                      CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info             PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR          CRITICALITY ignore  EXTENSION UL-Synchronisation-Parameters-LCR  PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD  CRITICALITY ignore  EXTENSION DL-TimeslotISCPInfoLCR            PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}


-- **************************************************************
--
-- RADIO LINK RECONFIGURATION READY
--
-- **************************************************************

RadioLinkReconfigurationReady ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationReady-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationReady-Extensions}}                 OPTIONAL,
    ...
}

RadioLinkReconfigurationReady-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                 CRITICALITY ignore  TYPE CRNC-CommunicationContextID               PRESENCE mandatory }|
    { ID id-RL-InformationResponseList-RL-ReconfReady   CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfReady  PRESENCE optional }|
    { ID id-CriticalityDiagnostics                      CRITICALITY ignore  TYPE CriticalityDiagnostics                    PRESENCE optional },
    ...
}

RadioLinkReconfigurationReady-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TargetCommunicationControlPortID    CRITICALITY ignore      EXTENSION CommunicationControlPortID          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional }|
    -- FDD only
    { ID id-HSDSCH-TDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response     PRESENCE optional },
    -- TDD only
    ...
}

RL-InformationResponseList-RL-ReconfReady    ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-RL-
ReconfReady}}

RL-InformationResponseItemIE-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfReady   CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfReady  PRESENCE mandatory }
}

RL-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
    rL-ID                                       RL-ID,
    dCH-InformationResponseList-RL-ReconfReady      DCH-InformationResponseList-RL-ReconfReady  OPTIONAL,
    dSCH-InformationResponseList-RL-ReconfReady     DSCH-InformationResponseList-RL-ReconfReady OPTIONAL, -- TDD only
    uSCH-InformationResponseList-RL-ReconfReady     USCH-InformationResponseList-RL-ReconfReady OPTIONAL, -- TDD only
    not-Used-tFCI2-BearerInformationResponse        NULL                                        OPTIONAL,
```

```
    iE-Extensions                                   ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfReady-ExtIEs} }
    OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfReady-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator          CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator          PRESENCE optional
}|
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                   PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

DCH-InformationResponseList-RL-ReconfReady::= ProtocolIE-Single-Container {{ DCH-InformationResponseListIEs-RL-ReconfReady }}

DCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse    PRESENCE mandatory }
}

DSCH-InformationResponseList-RL-ReconfReady::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-ReconfReady }}

DSCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponse   CRITICALITY ignore   TYPE DSCH-InformationResponse   PRESENCE mandatory }
}

USCH-InformationResponseList-RL-ReconfReady::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-ReconfReady }}

USCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponse   CRITICALITY ignore   TYPE USCH-InformationResponse       PRESENCE mandatory }
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION FAILURE
--
-- **************************************************************

RadioLinkReconfigurationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationFailure-Extensions}}              OPTIONAL,
    ...
}

RadioLinkReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID         CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory } |
    { ID id-CauseLevel-RL-ReconfFailure         CRITICALITY ignore  TYPE CauseLevel-RL-ReconfFailure                PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
}

RadioLinkReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

CauseLevel-RL-ReconfFailure ::= CHOICE {
    generalCause        GeneralCauseList-RL-ReconfFailure,
    rLSpecificCause     RLSpecificCauseList-RL-ReconfFailure,
    ...
}

GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }        OPTIONAL,
    ...
 }

GeneralCauseItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
    rL-ReconfigurationFailureList-RL-ReconfFailure      RL-ReconfigurationFailureList-RL-ReconfFailure               OPTIONAL,
    iE-Extensions                                       ProtocolExtensionContainer { { RLSpecificCauseItem-RL-ReconfFailure-ExtIEs} }
    OPTIONAL,
    ...
 }

RLSpecificCauseItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-ReconfigurationFailureList-RL-ReconfFailure ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-
ReconfigurationFailureItemIE-RL-ReconfFailure}}

RL-ReconfigurationFailureItemIE-RL-ReconfFailure NBAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailureItem-RL-ReconfFailure  CRITICALITY ignore  TYPE RL-ReconfigurationFailureItem-RL-ReconfFailure  PRESENCE
mandatory}
}

RL-ReconfigurationFailureItem-RL-ReconfFailure ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs} }
    OPTIONAL,
    ...
 }

RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION COMMIT
--
```

```
-- **************************************************************

RadioLinkReconfigurationCommit ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationCommit-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationCommit-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationCommit-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID         CRITICALITY ignore  TYPE NodeB-CommunicationContextID          PRESENCE mandatory } |
    { ID    id-CFN                                  CRITICALITY ignore  TYPE CFN                                 PRESENCE mandatory }|
    { ID    id-Active-Pattern-Sequence-Information  CRITICALITY ignore  TYPE Active-Pattern-Sequence-Information   PRESENCE optional },
    -- FDD only
    ...
}

RadioLinkReconfigurationCommit-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION CANCEL
--
-- **************************************************************

RadioLinkReconfigurationCancel ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationCancel-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationCancel-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationCancel-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID         CRITICALITY     ignore      TYPE    NodeB-CommunicationContextID        PRESENCE mandatory   },
    ...
}

RadioLinkReconfigurationCancel-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- **************************************************************

RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationRequestFDD-Extensions}}            OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-NodeB-CommunicationContextID                    CRITICALITY reject  TYPE NodeB-CommunicationContextID              PRESENCE mandatory
}|
    { ID id-UL-DPCH-Information-RL-ReconfRqstFDD            CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfRqstFDD       PRESENCE optional }|
    { ID id-DL-DPCH-Information-RL-ReconfRqstFDD            CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfRqstFDD       PRESENCE optional }|
    { ID id-FDD-DCHs-to-Modify                              CRITICALITY reject  TYPE FDD-DCHs-to-Modify                         PRESENCE optional }|
    { ID id-DCHs-to-Add-FDD                                 CRITICALITY reject  TYPE DCH-FDD-Information                        PRESENCE optional }|
    { ID id-DCH-DeleteList-RL-ReconfRqstFDD                 CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstFDD            PRESENCE optional }|
    { ID id-RL-InformationList-RL-ReconfRqstFDD             CRITICALITY reject  TYPE RL-InformationList-RL-ReconfRqstFDD        PRESENCE optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
    ...
}

RadioLinkReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SignallingBearerRequestIndicator            CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator      PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                      CRITICALITY reject  EXTENSION HSDSCH-FDD-Information                PRESENCE optional }|
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify-Unsynchronised    PRESENCE
optional }|
    { ID id-HSDSCH-MACdFlows-to-Add                     CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information          PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Delete                  CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete            PRESENCE optional }|
    { ID id-HSDSCH-RNTI                                 CRITICALITY reject  EXTENSION HSDSCH-RNTI                           PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                               CRITICALITY reject  EXTENSION RL-ID                                 PRESENCE optional }|
    { ID id-E-DPCH-Information-RL-ReconfRqstFDD         CRITICALITY reject  EXTENSION E-DPCH-Information-RL-ReconfRqstFDD   PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                       CRITICALITY reject  EXTENSION E-DCH-FDD-Information                 PRESENCE optional }|
    { ID id-E-DCH-FDD-Information-to-Modify             CRITICALITY reject  EXTENSION E-DCH-FDD-Information-to-Modify       PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Add                      CRITICALITY reject  EXTENSION E-DCH-MACdFlows-Information           PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Delete                   CRITICALITY reject  EXTENSION E-DCH-MACdFlows-to-Delete             PRESENCE optional }|
    { ID id-Serving-E-DCH-RL-ID                         CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                   PRESENCE optional },
    ...
}


UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    ul-TFCS                                     TFCS            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPDCH-Indicator-For-E-DCH-Operation  CRITICALITY reject  EXTENSION UL-DPDCH-Indicator-For-E-DCH-Operation       PRESENCE conditional
},
    -- The IE shall be present if E-DPCH Information IE is present
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    dl-TFCS                                     TFCS                                    OPTIONAL,
    tFCI-SignallingMode                         TFCI-SignallingMode                     OPTIONAL,
    limitedPowerIncrease                        LimitedPowerIncrease                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
 }
```

```
DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD

DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                                      DCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...

}

DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-ReconfRqstFDD}}

RL-InformationItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-ReconfRqstFDD              CRITICALITY     reject          TYPE                RL-InformationItem-RL-
ReconfRqstFDD           PRESENCE    mandatory}
}

RL-InformationItem-RL-ReconfRqstFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    maxDL-Power                             DL-Power        OPTIONAL,
    minDL-Power                             DL-Power        OPTIONAL,
    dl-CodeInformation                      FDD-DL-CodeInformation      OPTIONAL,
-- The IE shall be present if the Transmission Gap Pattern Sequence Information IE is included and the indicated Downlink Compressed Mode method
for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2".
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower            CRITICALITY ignore      EXTENSION DL-Power                                      PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION RL-Specific-DCH-Info                          PRESENCE optional }|
    { ID id-E-DCH-RL-Indication         CRITICALITY reject      EXTENSION E-DCH-RL-Indication                           PRESENCE optional }|
    { ID id-RL-Specific-E-DCH-Info      CRITICALITY ignore  EXTENSION RL-Specific-E-DCH-Info                            PRESENCE optional },
    ...
}

E-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                     Max-Set-E-DPDCHs                                                    OPTIONAL,
    ul-PunctureLimit                    PunctureLimit                                                       OPTIONAL,
    e-TFCS-Information                  E-TFCS-Information                                                  OPTIONAL,
    e-TTI                               E-TTI                                                               OPTIONAL,
    e-DPCCH-PO                          E-DPCCH-PO                                                          OPTIONAL,
    e-RGCH-2-IndexStepThreshold         E-RGCH-2-IndexStepThreshold                                         OPTIONAL,
    e-RGCH-3-IndexStepThreshold         E-RGCH-3-IndexStepThreshold                                         OPTIONAL,
    hARQ-Info-for-E-DCH                 HARQ-Info-for-E-DCH                                                 OPTIONAL,
    hSDSCH-Configured-Indicator         HSDSCH-Configured-Indicator                                         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { E-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
```

```
    ...
}

E-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- **************************************************************

RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationRequestTDD-Extensions}}             OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                        CRITICALITY reject  TYPE NodeB-CommunicationContextID          PRESENCE mandatory
}|
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
    PRESENCE optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
    PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
    PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
    PRESENCE optional } |
    { ID id-TDD-DCHs-to-Modify                                  CRITICALITY reject  TYPE TDD-DCHs-to-Modify                  PRESENCE optional }|
    { ID    id-DCHs-to-Add-TDD                                  CRITICALITY reject  TYPE DCH-TDD-Information                 PRESENCE optional }|
    { ID id-DCH-DeleteList-RL-ReconfRqstTDD                     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstTDD     PRESENCE optional }|
    { ID id-RL-Information-RL-ReconfRqstTDD                     CRITICALITY reject  TYPE RL-Information-RL-ReconfRqstTDD     PRESENCE optional },
-- This RL-Information-RL-ReconfRqstTDD is the first RL information repetition in the RL-Information List. Repetition 2 and on, should be defined
in Multiple-RL-Information-RL-ReconfRqstTDD,
    ...
}

RadioLinkReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SignallingBearerRequestIndicator            CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator PRESENCE optional }|
    { ID id-multiple-RL-Information-RL-ReconfRqstTDD                CRITICALITY reject  EXTENSION Multiple-RL-Information-RL-ReconfRqstTDD
    PRESENCE optional }|
--Includes the 2nd through the max number of radio link information repetitions.
    { ID id-HSDSCH-TDD-Information                      CRITICALITY reject  EXTENSION HSDSCH-TDD-Information             PRESENCE optional }|
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify-Unsynchronised    PRESENCE
optional }|
    { ID id-HSDSCH-MACdFlows-to-Add                     CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information       PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Delete                  CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete         PRESENCE optional }|
    { ID id-HSDSCH-RNTI                                 CRITICALITY reject  EXTENSION HSDSCH-RNTI                        PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                               CRITICALITY reject  EXTENSION RL-ID                              PRESENCE optional },
    ...
}
```

```
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ UL-CCTrCH-
InformationModifyItemIE-RL-ReconfRqstTDD}}

UL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
    PRESENCE mandatory}
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                       CCTrCH-ID,
    tFCS                                            TFCS            OPTIONAL,
    punctureLimit                                   PunctureLimit   OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget        CRITICALITY reject      EXTENSION       UL-SIR      PRESENCE    optional   },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ UL-CCTrCH-
InformationDeleteItemIE-RL-ReconfRqstTDD}}

UL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD         CRITICALITY     notify                          TYPE  UL-CCTrCH-
InformationDeleteItem-RL-ReconfRqstTDD      PRESENCE    mandatory}
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                       CCTrCH-ID,
    iE-Extensions                                   ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ DL-CCTrCH-
InformationModifyItemIE-RL-ReconfRqstTDD}}

DL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD         CRITICALITY     notify                          TYPE  DL-CCTrCH-
InformationModifyItem-RL-ReconfRqstTDD      PRESENCE    mandatory}
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                       CCTrCH-ID,
    tFCS                                            TFCS            OPTIONAL,
```

```
    punctureLimit                                   PunctureLimit   OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD   CRITICALITY ignore  EXTENSION  DL-DPCH-LCR-InformationModify-ModifyList-RL-
ReconfRqstTDD       PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
-- This DPCH LCR Information is the for the first RL repetition, DPCH LCR information for RL repetitions 2 and on, should be defined in MultipleRL-
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
    { ID id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD  CRITICALITY ignore  EXTENSION DL-Power        PRESENCE optional }|
-- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
    { ID id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD  CRITICALITY ignore  EXTENSION DL-Power        PRESENCE optional }|
-- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
    { ID id-RL-ID                                                   CRITICALITY ignore  EXTENSION              RL-ID    PRESENCE optional }|
-- This is the RL ID for the first RL repetition.
    { ID id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD CRITICALITY reject  EXTENSION              MultipleRL-DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD  PRESENCE optional   },
-- This CCTrCH Information is the for the 2nd and beyond RL repetitions.
    ...
}

MultipleRL-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF  MultipleRL-DL-CCTrCH-InformationModifyListIE-
RL-ReconfRqstTDD
--Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-DL-CCTrCH-InformationModifyListIE-RL-ReconfRqstTDD ::= SEQUENCE {
    dl-DPCH-LCR-InformationModifyList                       DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD  OPTIONAL,
    cCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD      DL-Power                                           OPTIONAL,
    cCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD      DL-Power                                           OPTIONAL,
    rL-ID                                                   RL-ID                                                  OPTIONAL,
...
}


DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE {
    dL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD       DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfRqstTDD

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD    ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
```

```
    maxPowerLCR                             DL-Power    OPTIONAL,
    minPowerLCR                             DL-Power    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD-ExtIEs} }
        OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ DL-CCTrCH-
InformationDeleteItemIE-RL-ReconfRqstTDD}}

DL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD     CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
    PRESENCE    mandatory}
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD

DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID                                      DCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-RL-Information-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-Information-RL-ReconfRqstTDD
--Includes the 2nd through the max number of radio link information repetitions.

RL-Information-RL-ReconfRqstTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    maxDL-Power                             DL-Power        OPTIONAL,
    minDL-Power                             DL-Power        OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info                    PRESENCE    optional }|
    { ID id-UL-Synchronisation-Parameters-LCR           CRITICALITY ignore      EXTENSION   UL-Synchronisation-Parameters-LCR     PRESENCE
    optional    },  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION RESPONSE
--
-- **************************************************************

RadioLinkReconfigurationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkReconfigurationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationResponse-Extensions}}              OPTIONAL,
    ...
}

RadioLinkReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY ignore      TYPE    CRNC-CommunicationContextID                 PRESENCE
    mandatory   } |
    { ID    id-RL-InformationResponseList-RL-ReconfRsp      CRITICALITY ignore      TYPE    RL-InformationResponseList-RL-ReconfRsp        PRESENCE
    optional    } |
    { ID    id-CriticalityDiagnostics                       CRITICALITY ignore      TYPE    CriticalityDiagnostics                  PRESENCE
    optional    },
    ...
}

RadioLinkReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TargetCommunicationControlPortID    CRITICALITY ignore      EXTENSION CommunicationControlPortID          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional }|
    -- FDD only
    { ID id-HSDSCH-TDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response     PRESENCE optional },
    -- TDD only

    ...
}

RL-InformationResponseList-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationResponseItemIE-RL-
ReconfRsp}}

RL-InformationResponseItemIE-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationResponseItem-RL-ReconfRsp          CRITICALITY     ignore          TYPE                RL-InformationResponseItem-RL-
ReconfRsp           PRESENCE    mandatory}
}

RL-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
    rL-ID                                   RL-ID,
    dCH-InformationResponseList-RL-ReconfRsp    DCH-InformationResponseList-RL-ReconfRsp                                    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfRsp-ExtIEs} }     OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfRsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-DL-PowerBalancing-UpdatedIndicator          CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator          PRESENCE optional
    }|
    -- FDD only
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                  PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

DCH-InformationResponseList-RL-ReconfRsp::= ProtocolIE-Single-Container {{ DCH-InformationResponseListIEs-RL-ReconfRsp }}


DCH-InformationResponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse    PRESENCE mandatory }
}

-- **************************************************************
--
-- RADIO LINK DELETION REQUEST
--
-- **************************************************************

RadioLinkDeletionRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkDeletionRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkDeletionRequest-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                 CRITICALITY reject  TYPE NodeB-CommunicationContextID           PRESENCE mandatory }|
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY reject  TYPE CRNC-CommunicationContextID            PRESENCE mandatory }|
    { ID    id-RL-informationList-RL-DeletionRqst           CRITICALITY notify  TYPE RL-informationList-RL-DeletionRqst     PRESENCE mandatory },
    ...
}

RadioLinkDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-informationList-RL-DeletionRqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-informationItemIE-RL-DeletionRqst}}

RL-informationItemIE-RL-DeletionRqst NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-informationItem-RL-DeletionRqst           CRITICALITY     notify          TYPE                    RL-informationItem-RL-
DeletionRqst                PRESENCE    mandatory}
}

RL-informationItem-RL-DeletionRqst ::= SEQUENCE {
    rL-ID                                   RL-ID,
    iE-Extensions                           ProtocolExtensionContainer { { RL-informationItem-RL-DeletionRqst-ExtIEs} }    OPTIONAL,
    ...
 }
```

```
RL-informationItem-RL-DeletionRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK DELETION RESPONSE
--
-- **************************************************************

RadioLinkDeletionResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkDeletionResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkDeletionResponse-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID                  PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics               CRITICALITY ignore  TYPE CriticalityDiagnostics                       PRESENCE optional },
    ...
}

RadioLinkDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- DL POWER CONTROL REQUEST FDD
--
-- **************************************************************

DL-PowerControlRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DL-PowerControlRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DL-PowerControlRequest-Extensions}}                     OPTIONAL,
    ...
}

DL-PowerControlRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID        CRITICALITY ignore  TYPE    NodeB-CommunicationContextID              PRESENCE mandatory   } |
    { ID id-PowerAdjustmentType                 CRITICALITY ignore  TYPE PowerAdjustmentType                          PRESENCE mandatory} |
    { ID id-DLReferencePower                    CRITICALITY ignore  TYPE DL-Power                                     PRESENCE conditional} |
    -- This IE shall be present if the Adjustment Type IE is set to 'Common'
    { ID id-InnerLoopDLPCStatus                 CRITICALITY ignore  TYPE InnerLoopDLPCStatus                          PRESENCE optional } |
    { ID id-DLReferencePowerList-DL-PC-Rqst     CRITICALITY ignore  TYPE DL-ReferencePowerInformationList-DL-PC-Rqst  PRESENCE conditional } |
    -- This IE shall be present if the Adjustment Type IE is set to 'Individual'
    { ID id-MaxAdjustmentStep                   CRITICALITY ignore  TYPE MaxAdjustmentStep                            PRESENCE conditional} |
    -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
    { ID id-AdjustmentPeriod                    CRITICALITY ignore  TYPE AdjustmentPeriod                             PRESENCE conditional }|
    -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
    { ID id-AdjustmentRatio                     CRITICALITY ignore  TYPE ScaledAdjustmentRatio                        PRESENCE conditional },
    -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
```

```
    ...
}

DL-PowerControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-ReferencePowerInformationList-DL-PC-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{DL-
ReferencePowerInformationItemIE-DL-PC-Rqst }}

DL-ReferencePowerInformationItemIE-DL-PC-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-DL-ReferencePowerInformationItem-DL-PC-Rqst     CRITICALITY      ignore     TYPE    DL-ReferencePowerInformationItem-DL-PC-Rqst
    PRESENCE    mandatory
}
}

DL-ReferencePowerInformationItem-DL-PC-Rqst ::= SEQUENCE {
    rL-ID                                   RL-ID,
    dl-ReferencePower                       DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs } }    OPTIONAL,
    ...
}

DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DL POWER TIMESLOT CONTROL REQUEST TDD
--
-- **************************************************************

DL-PowerTimeslotControlRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DL-PowerTimeslotControlRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DL-PowerTimeslotControlRequest-Extensions}}                OPTIONAL,
    ...
}

DL-PowerTimeslotControlRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID            CRITICALITY ignore          TYPE    NodeB-CommunicationContextID           PRESENCE mandatory
    } |
    { ID id-TimeslotISCPInfo        CRITICALITY ignore          TYPE    DL-TimeslotISCPInfo     PRESENCE optional },
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD

    ...
}

DL-PowerTimeslotControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD      CRITICALITY ignore          EXTENSION   DL-TimeslotISCPInfoLCR   PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD                CRITICALITY ignore          EXTENSION PrimaryCCPCH-RSCP       PRESENCE optional }|
    { ID id-PrimaryCCPCH-RSCP-Delta                     CRITICALITY ignore          EXTENSION PrimaryCCPCH-RSCP-Delta PRESENCE optional },
    ...
```

```
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

DedicatedMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DedicatedMeasurementInitiationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementInitiationRequest-Extensions}}          OPTIONAL,
    ...
}

DedicatedMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID            CRITICALITY reject  TYPE NodeB-CommunicationContextID               PRESENCE mandatory } |
    { ID id-MeasurementID                           CRITICALITY reject  TYPE MeasurementID                              PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst  CRITICALITY reject  TYPE DedicatedMeasurementObjectType-DM-Rqst     PRESENCE mandatory } |
    { ID id-DedicatedMeasurementType                CRITICALITY reject  TYPE DedicatedMeasurementType                   PRESENCE mandatory } |
    { ID id-MeasurementFilterCoefficient            CRITICALITY reject  TYPE MeasurementFilterCoefficient               PRESENCE optional } |
    { ID id-ReportCharacteristics                   CRITICALITY reject  TYPE ReportCharacteristics                      PRESENCE mandatory } |
    { ID id-CFNReportingIndicator                   CRITICALITY reject  TYPE FNReportingIndicator                       PRESENCE mandatory } |
    { ID id-CFN                                     CRITICALITY reject  TYPE CFN                                        PRESENCE optional } ,
    ...
}

DedicatedMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-NumberOfReportedCellPortions CRITICALITY reject  EXTENSION NumberOfReportedCellPortions            PRESENCE conditional}|
    -- The IE shall be present if the Dedicated Measurement Type IE is set to 'Best Cell Portions', FDD only.
    { ID    id-MeasurementRecoveryBehavior              CRITICALITY ignore              EXTENSION MeasurementRecoveryBehavior     PRESENCE optional
    },
    ...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL                          RL-DM-Rqst,
    rLS                         RL-Set-DM-Rqst,         -- for FDD only
    all-RL                      AllRL-DM-Rqst,
    all-RLS                     AllRL-Set-DM-Rqst,      -- for FDD only
    ...
}

RL-DM-Rqst ::= SEQUENCE {
    rL-InformationList                RL-InformationList-DM-Rqst,
    iE-Extensions                     ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs } }                      OPTIONAL,
    ...
}

RLItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rqst }}
```

```
RL-InformationItemIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst   CRITICALITY reject TYPE RL-InformationItem-DM-Rqst     PRESENCE mandatory }
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
        rL-ID                           RL-ID,
        dPCH-ID                         DPCH-ID             OPTIONAL, -- for TDD only
        iE-Extensions                   ProtocolExtensionContainer { { RL-InformationItem-DM-Rqst-ExtIEs } }          OPTIONAL,
        ...
    }

RL-InformationItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PUSCH-Info-DM-Rqst      CRITICALITY reject              EXTENSION   PUSCH-Info-DM-Rqst                    PRESENCE optional}|
    -- TDD only
    { ID id-HSSICH-Info-DM-Rqst     CRITICALITY reject              EXTENSION   HSSICH-Info-DM-Rqst                   PRESENCE optional},
    -- TDD only
    ...
}

PUSCH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID

RL-Set-DM-Rqst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rqst         RL-Set-InformationList-DM-Rqst,
    iE-Extensions                          ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs } }             OPTIONAL,
    ...
}

RL-SetItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rqst                 ::= SEQUENCE (SIZE(1..maxNrOfRLSets)) OF RL-Set-InformationItem-DM-Rqst

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    iE-Extensions                   ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-DM-Rqst ::= NULL


AllRL-Set-DM-Rqst ::= NULL

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
```

```
-- **************************************************************

DedicatedMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DedicatedMeasurementInitiationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementInitiationResponse-Extensions}}         OPTIONAL,
    ...
}

DedicatedMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID             CRITICALITY ignore  TYPE CRNC-CommunicationContextID              PRESENCE mandatory } |
    { ID id-MeasurementID                           CRITICALITY ignore  TYPE MeasurementID                            PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rsp   CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rsp    PRESENCE optional } |
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore  TYPE CriticalityDiagnostics                   PRESENCE optional },
    ...
}

DedicatedMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
     { ID    id-MeasurementRecoverySupportIndicator      CRITICALITY ignore      EXTENSION   MeasurementRecoverySupportIndicator   PRESENCE optional
    },
    ...
}

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rL                          RL-DM-Rsp,
    rLS                         RL-Set-DM-Rsp,  -- for FDD only
    all-RL                      RL-DM-Rsp,
    all-RLS                     RL-Set-DM-Rsp,  -- for FDD only
    ...
}

RL-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp           RL-InformationList-DM-Rsp,
    iE-Extensions                       ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs } }                   OPTIONAL,
    ...
}

RLItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rsp }}

RL-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp   CRITICALITY ignore  TYPE RL-InformationItem-DM-Rsp      PRESENCE mandatory }
}

RL-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-ID                               RL-ID,
    dPCH-ID                             DPCH-ID         OPTIONAL,   -- for TDD only
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    cFN                                 CFN             OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationItem-DM-Rsp-ExtIEs } }           OPTIONAL,
    ...
}
```

```
RL-InformationItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-Info-DM-Rsp        CRITICALITY reject              EXTENSION   PUSCH-Info-DM-Rsp                      PRESENCE optional}|
    -- TDD only
    -- This PUSCH Information is the for the first PUSCH repetition, PUSCH information for PUSCH repetitions 2 and on, should be defined in
Multiple-PUSCH-InfoList-DM-Rsp.
    {ID id-HSSICH-Info-DM-Rsp       CRITICALITY reject              EXTENSION   HS-SICH-ID                             PRESENCE optional}|
    -- TDD only
    { ID    id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp    CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp
    PRESENCE optional   }|
    -- Applicable to 3.84Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID    id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp    CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-LCR-
TDD-DM-Rsp  PRESENCE optional   }|
    -- Applicable to 1.28Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID    id-multiple-PUSCH-InfoList-DM-Rsp   CRITICALITY ignore  EXTENSION Multiple-PUSCH-InfoList-DM-Rsp       PRESENCE optional }|
    -- TDD only, This PUSCH information is the for the 2nd and beyond PUSCH repetitions.
    { ID    id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp   CRITICALITY ignore  EXTENSION Multiple-HSSICHMeasurementValueList-TDD-DM-Rsp
    PRESENCE optional   },
    -- TDD only. This list of HS-SICH measurement values is used for the 2nd and beyond measurements of a RL when multiple HS-SICH measurement
values need to be reported.
    ...
}

PUSCH-Info-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

Multiple-PUSCH-InfoList-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfPUSCHs-1)) OF Multiple-PUSCH-InfoListIE-DM-Rsp
-- Includes the 2nd through the max number of PUSCH information repetitions.

Multiple-PUSCH-InfoListIE-DM-Rsp ::= SEQUENCE {
    pUSCH-ID                            PUSCH-ID                                                                    OPTIONAL,
    dedicatedMeasurementValue           DedicatedMeasurementValue                                                   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Multiple-PUSCH-InfoListIE-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...
}

Multiple-PUSCH-InfoListIE-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp       RL-Set-InformationList-DM-Rsp,
    iE-Extensions                       ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs } }                 OPTIONAL,
    ...
}

RL-SetItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rsp }}

RL-Set-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-RL-Set-InformationItem-DM-Rsp       CRITICALITY ignore      TYPE    RL-Set-InformationItem-DM-Rsp       PRESENCE mandatory}
}

RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    cFN                             CFN                 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-TDD-DM-
Rsp

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
Multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsLCRPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-
LCR-TDD-DM-Rsp

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs} }
    OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-HSSICHMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfHSSICHs-1)) OF Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp

Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    hsSICH-ID                       HS-SICH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...

}
Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

DedicatedMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementInitiationFailure-Extensions}}          OPTIONAL,
    ...
}

DedicatedMeasurementInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY     ignore          TYPE    CRNC-CommunicationContextID     PRESENCE mandatory   }
|
    { ID    id-MeasurementID                        CRITICALITY     ignore          TYPE    MeasurementID                   PRESENCE mandatory   }
|
    { ID    id-Cause                                CRITICALITY     ignore          TYPE    Cause                           PRESENCE mandatory   }
|
    { ID    id-CriticalityDiagnostics               CRITICALITY     ignore          TYPE    CriticalityDiagnostics          PRESENCE optional },
    ...
}

DedicatedMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT REPORT
--
-- **************************************************************

DedicatedMeasurementReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DedicatedMeasurementReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementReport-Extensions}}                   OPTIONAL,
    ...
}

DedicatedMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID             CRITICALITY ignore  TYPE CRNC-CommunicationContextID            PRESENCE mandatory   } |
    { ID id-MeasurementID                           CRITICALITY ignore  TYPE MeasurementID                          PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt  CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rprt  PRESENCE mandatory   } ,
    ...
}

DedicatedMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MeasurementRecoveryReportingIndicator        CRITICALITY ignore      EXTENSION   MeasurementRecoveryReportingIndicator   PRESENCE
optional
    },
    ...
}
```

```
DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
    rL                                  RL-DM-Rprt,
    rLS                                 RL-Set-DM-Rprt,         -- for FDD only
    all-RL                              RL-DM-Rprt,
    all-RLS                             RL-Set-DM-Rprt,         -- for FDD only
    ...
}

RL-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt          RL-InformationList-DM-Rprt,
    iE-Extensions                       ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs } }                    OPTIONAL,
    ...
}

RLItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rprt }}

RL-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rprt   CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt     PRESENCE mandatory }
}

RL-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-ID                           RL-ID,
    dPCH-ID                         DPCH-ID     OPTIONAL,       -- for TDD only
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer { { RL-InformationItem-DM-Rprt-ExtIEs } }         OPTIONAL,
    ...
}

RL-InformationItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-Info-DM-Rprt       CRITICALITY reject              EXTENSION   PUSCH-Info-DM-Rprt                  PRESENCE optional}|
    -- TDD only
    -- This PUSCH Information is the for the first PUSCH repetition, PUSCH information for PUSCH repetitions 2 and on, should be defined in
Multiple-PUSCH-InfoList-DM-Rprt.
    {ID id-HSSICH-Info-DM-Rprt      CRITICALITY reject              EXTENSION   HS-SICH-ID                          PRESENCE optional}|
    -- TDD only
    { ID    id-multiple-PUSCH-InfoList-DM-Rprt  CRITICALITY ignore  EXTENSION Multiple-PUSCH-InfoList-DM-Rprt       PRESENCE optional },
    -- TDD only, This PUSCH information is the for the 2nd and beyond PUSCH repetitions.
    ...
}

PUSCH-Info-DM-Rprt ::= SEQUENCE (SIZE (0..maxNrOfPUSCHs)) OF PUSCH-ID

Multiple-PUSCH-InfoList-DM-Rprt ::= SEQUENCE (SIZE (1.. maxNrOfPUSCHs-1)) OF Multiple-PUSCH-InfoListIE-DM-Rprt
-- Includes the 2nd through the max number of PUSCH information repetitions.

Multiple-PUSCH-InfoListIE-DM-Rprt ::= SEQUENCE {
    pUSCH-ID                            PUSCH-ID                                                                    OPTIONAL,
    dedicatedMeasurementValue           DedicatedMeasurementValue                                                   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Multiple-PUSCH-InfoListIE-DM-Rprt-ExtIEs} }  OPTIONAL,
```

```
    ...
}

Multiple-PUSCH-InfoListIE-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rprt ::= SEQUENCE {
    rL-Set-InformationList-DM-Rprt      RL-Set-InformationList-DM-Rprt,
    iE-Extensions                       ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs } }                  OPTIONAL,
    ...
}

RL-SetItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rprt }}

RL-Set-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt  CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rprt                  PRESENCE mandatory   }
}

RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

DedicatedMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DedicatedMeasurementTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementTerminationRequest-Extensions}}         OPTIONAL,
    ...
}

DedicatedMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID         CRITICALITY     ignore          TYPE    NodeB-CommunicationContextID    PRESENCE mandatory   }
|
    { ID    id-MeasurementID                        CRITICALITY     ignore          TYPE    MeasurementID                   PRESENCE mandatory   },
    ...
}

DedicatedMeasurementTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT FAILURE INDICATION
--
-- **************************************************************

DedicatedMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DedicatedMeasurementFailureIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementFailureIndication-Extensions}}          OPTIONAL,
    ...
}

DedicatedMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID      CRITICALITY     ignore      TYPE    CRNC-CommunicationContextID       PRESENCE mandatory   } |
    { ID    id-MeasurementID                    CRITICALITY     ignore      TYPE    MeasurementID                     PRESENCE mandatory   } |
    { ID    id-Cause                            CRITICALITY     ignore      TYPE    Cause                             PRESENCE mandatory   },
    ...
}

DedicatedMeasurementFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK FAILURE INDICATION
--
-- **************************************************************

RadioLinkFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkFailureIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkFailureIndication-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID              CRITICALITY ignore          TYPE CRNC-CommunicationContextID        PRESENCE mandatory   }
|
    { ID    id-Reporting-Object-RL-FailureInd           CRITICALITY ignore          TYPE Reporting-Object-RL-FailureInd     PRESENCE mandatory   }
,
    ...
}

RadioLinkFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Reporting-Object-RL-FailureInd ::= CHOICE {
    rL                      RL-RL-FailureInd,
    rL-Set                  RL-Set-RL-FailureInd, --FDD only
    ...,
```

```
    cCTrCH                  CCTrCH-RL-FailureInd --TDD only
}

RL-RL-FailureInd ::= SEQUENCE {
    rL-InformationList-RL-FailureInd        RL-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs } }            OPTIONAL,
    ...
 }

RLItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-FailureInd}}

RL-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-FailureInd         CRITICALITY     ignore          TYPE    RL-InformationItem-RL-FailureInd        PRESENCE
    mandatory}
 }

RL-InformationItem-RL-FailureInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-FailureInd-ExtIEs } }     OPTIONAL,
    ...
 }

RL-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-FailureInd ::= SEQUENCE {
    rL-Set-InformationList-RL-FailureInd    RL-Set-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs } }        OPTIONAL,
    ...
 }

RL-SetItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-RL-
FailureInd }}

RL-Set-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-RL-FailureInd    CRITICALITY ignore      TYPE RL-Set-InformationItem-RL-FailureInd    PRESENCE mandatory   }
}

RL-Set-InformationItem-RL-FailureInd ::= SEQUENCE {
    rL-Set-ID               RL-Set-ID,
    cause                   Cause,
    iE-Extensions           ProtocolExtensionContainer { { RL-Set-InformationItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}
```

```
RL-Set-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-FailureInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cCTrCH-InformationList-RL-FailureInd    CCTrCH-InformationList-RL-FailureInd,
    iE-Extensions                       ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }    OPTIONAL,
    ...
 }

CCTrCHItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
FailureInd}}

CCTrCH-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
    { ID    id-CCTrCH-InformationItem-RL-FailureInd     CRITICALITY     ignore      TYPE                CCTrCH-InformationItem-RL-
FailureInd      PRESENCE    mandatory}
 }

CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-FailureInd-ExtIEs } }    OPTIONAL,
    ...
 }

CCTrCH-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK PREEMPTION REQUIRED INDICATION
--
-- **************************************************************

RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{RadioLinkPreemptionRequiredIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}    OPTIONAL,
    ...
}

RadioLinkPreemptionRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID              CRITICALITY     ignore      TYPE                CRNC-CommunicationContextID
            PRESENCE    mandatory       } |
    { ID id-RL-InformationList-RL-PreemptRequiredInd    CRITICALITY ignore  TYPE RL-InformationList-RL-PreemptRequiredInd   PRESENCE optional },
    ...
}
```

```
RadioLinkPreemptionRequiredIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-PreemptRequiredInd           ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIE-RL-
PreemptRequiredInd}}

RL-InformationItemIE-RL-PreemptRequiredInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-PreemptRequiredInd        CRITICALITY ignore  TYPE RL-InformationItem-RL-PreemptRequiredInd     PRESENCE
mandatory   },
    ...
}

RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-InformationItem-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-RL-PreemptRequiredInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RESTORE INDICATION
--
-- **************************************************************

RadioLinkRestoreIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkRestoreIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkRestoreIndication-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkRestoreIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID             PRESENCE mandatory   } |
    { ID    id-Reporting-Object-RL-RestoreInd       CRITICALITY ignore  TYPE Reporting-Object-RL-RestoreInd          PRESENCE mandatory   },
    ...
}

RadioLinkRestoreIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Reporting-Object-RL-RestoreInd ::= CHOICE {
    rL                      RL-RL-RestoreInd, --TDD only
    rL-Set                  RL-Set-RL-RestoreInd, --FDD only
    ...,
    cCTrCH                  CCTrCH-RL-RestoreInd --TDD only
}

RL-RL-RestoreInd ::= SEQUENCE {
    rL-InformationList-RL-RestoreInd        RL-InformationList-RL-RestoreInd,
```

```
    iE-Extensions                       ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs } }          OPTIONAL,
    ...
 }

RLItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationItemIE-RL-RestoreInd}}

RL-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-RestoreInd     CRITICALITY ignore      TYPE    RL-InformationItem-RL-RestoreInd        PRESENCE mandatory}
 }

RL-InformationItem-RL-RestoreInd ::= SEQUENCE {
    rL-ID                               RL-ID,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationItem-RL-RestoreInd-ExtIEs } }   OPTIONAL,
    ...
 }

RL-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-RestoreInd ::= SEQUENCE {
    rL-Set-InformationList-RL-RestoreInd    RL-Set-InformationList-RL-RestoreInd,
    iE-Extensions                       ProtocolExtensionContainer { { RL-SetItem-RL-RestoreInd-ExtIEs } }      OPTIONAL,
    ...
 }

RL-SetItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-RL-
RestoreInd }}

RL-Set-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-RL-RestoreInd    CRITICALITY ignore      TYPE RL-Set-InformationItem-RL-RestoreInd PRESENCE mandatory   }
 }

RL-Set-InformationItem-RL-RestoreInd ::= SEQUENCE {
    rL-Set-ID               RL-Set-ID,
    iE-Extensions           ProtocolExtensionContainer { { RL-Set-InformationItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-RestoreInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cCTrCH-InformationList-RL-RestoreInd    CCTrCH-InformationList-RL-RestoreInd,
```

```
    iE-Extensions                          ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }        OPTIONAL,
    ...
 }

CCTrCHItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
RestoreInd}}

CCTrCH-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID id-CCTrCH-InformationItem-RL-RestoreInd    CRITICALITY ignore  TYPE CCTrCH-InformationItem-RL-RestoreInd     PRESENCE mandatory }
 }

CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    iE-Extensions                            ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-RestoreInd-ExtIEs } }    OPTIONAL,
    ...
 }

CCTrCH-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- COMPRESSED MODE COMMAND FDD
--
-- **************************************************************


CompressedModeCommand ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CompressedModeCommand-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CompressedModeCommand-Extensions}}                  OPTIONAL,
    ...
}

CompressedModeCommand-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID         CRITICALITY         ignore      TYPE    NodeB-CommunicationContextID          PRESENCE
    mandatory   } |
    { ID    id-Active-Pattern-Sequence-Information  CRITICALITY         ignore      TYPE    Active-Pattern-Sequence-Information   PRESENCE
    mandatory },
    ...
}

CompressedModeCommand-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}


-- **************************************************************
--
-- ERROR INDICATION
--
-- **************************************************************

ErrorIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{ErrorIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ErrorIndication-Extensions}}      OPTIONAL,
    ...
}

ErrorIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID      CRITICALITY     ignore          TYPE    CRNC-CommunicationContextID      PRESENCE optional } |
    { ID    id-NodeB-CommunicationContextID     CRITICALITY     ignore          TYPE    NodeB-CommunicationContextID     PRESENCE optional } |
    { ID    id-Cause                            CRITICALITY     ignore          TYPE    Cause                            PRESENCE optional } |
    { ID    id-CriticalityDiagnostics           CRITICALITY     ignore          TYPE    CriticalityDiagnostics           PRESENCE optional },
    ...
}

ErrorIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PRIVATE MESSAGE
--
-- **************************************************************

PrivateMessage ::= SEQUENCE {
    privateIEs      PrivateIE-Container {{PrivateMessage-IEs}},
    ...
}

PrivateMessage-IEs NBAP-PRIVATE-IES ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST FDD
--
-- **************************************************************

PhysicalSharedChannelReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container  {{PhysicalSharedChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions    ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationRequestFDD-Extensions}}    OPTIONAL,
    ...
}
```

```
PhysicalSharedChannelReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                          CRITICALITY reject  TYPE C-ID                                          PRESENCE mandatory
}|
    { ID id-ConfigurationGenerationID                     CRITICALITY reject  TYPE ConfigurationGenerationID                 PRESENCE mandatory
}|
    { ID id-SFN                                           CRITICALITY reject  TYPE SFN                                       PRESENCE optional }|
    { ID id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst      CRITICALITY reject                 TYPE MaximumTransmissionPower
                PRESENCE optional }|
    { ID id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst CRITICALITY reject  TYPE DL-ScramblingCode                      PRESENCE optional }|
    { ID id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst   CRITICALITY reject  TYPE HS-PDSCH-FDD-Code-Information          PRESENCE optional }|
    { ID id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst    CRITICALITY reject  TYPE HS-SCCH-FDD-Code-Information           PRESENCE optional },
    ...
}

PhysicalSharedChannelReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code        CRITICALITY reject  EXTENSION DL-ScramblingCode
    PRESENCE optional }|
    { ID id-E-AGCH-FDD-Code-Information                         CRITICALITY reject  EXTENSION E-AGCH-FDD-Code-Information
    PRESENCE optional }|
    { ID id-E-RGCH-E-HICH-FDD-Code-Information                  CRITICALITY reject  EXTENSION E-RGCH-E-HICH-FDD-Code-Information
    PRESENCE optional }|
    {ID id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst   CRITICALITY reject  EXTENSION HSDPA-And-EDCH-CellPortion-InformationList-PSCH-
ReconfRqst      PRESENCE optional }|
    {ID id-Maximum-Target-ReceivedTotalWideBandPower                CRITICALITY reject  EXTENSION Maximum-Target-ReceivedTotalWideBandPower
PRESENCE optional }|
    {ID id-Reference-ReceivedTotalWideBandPower             CRITICALITY ignore  EXTENSION Reference-ReceivedTotalWideBandPower PRESENCE optional }|
    {ID id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio     CRITICALITY reject  EXTENSION Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio
    PRESENCE optional },
    ...
}



HSDPA-And-EDCH-CellPortion-InformationList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HSDPA-And-EDCH-CellPortion-
InformationItem-PSCH-ReconfRqst

HSDPA-And-EDCH-CellPortion-InformationItem-PSCH-ReconfRqst::= SEQUENCE {
    cellPortionID                                               CellPortionID,
    hS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst             DL-ScramblingCode                       OPTIONAL,
    hS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst               HS-PDSCH-FDD-Code-Information           OPTIONAL,
    hS-SCCH-FDD-Code-Information-PSCH-ReconfRqst                HS-SCCH-FDD-Code-Information            OPTIONAL,
    hS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst      MaximumTransmissionPower                OPTIONAL,
    e-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code                DL-ScramblingCode                       OPTIONAL,
    e-AGCH-FDD-Code-Information                                 E-AGCH-FDD-Code-Information             OPTIONAL,
    e-RGCH-E-HICH-FDD-Code-Information                          E-RGCH-E-HICH-FDD-Code-Information      OPTIONAL,
    iE-Extensions                                               ProtocolExtensionContainer { { HSDPA-And-EDCH-CellPortion-InformationItem-
PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HSDPA-And-EDCH-CellPortion-InformationItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
```

```
-- **************************************************************
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST TDD
--
-- **************************************************************

PhysicalSharedChannelReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container  {{PhysicalSharedChannelReconfigurationRequestTDD-IEs}},
    protocolExtensions    ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationRequestTDD-Extensions}}    OPTIONAL,
    ...
}

PhysicalSharedChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                  CRITICALITY reject  TYPE C-ID                                  PRESENCE mandatory }|
    { ID id-SFN                                   CRITICALITY reject  TYPE SFN                                   PRESENCE optional }|
    { ID id-PDSCHSets-AddList-PSCH-ReconfRqst     CRITICALITY reject  TYPE PDSCHSets-AddList-PSCH-ReconfRqst     PRESENCE optional }|
    { ID id-PDSCHSets-ModifyList-PSCH-ReconfRqst  CRITICALITY reject  TYPE PDSCHSets-ModifyList-PSCH-ReconfRqst  PRESENCE optional }|
    { ID id-PDSCHSets-DeleteList-PSCH-ReconfRqst  CRITICALITY reject  TYPE PDSCHSets-DeleteList-PSCH-ReconfRqst  PRESENCE optional }|
    { ID id-PUSCHSets-AddList-PSCH-ReconfRqst     CRITICALITY reject  TYPE PUSCHSets-AddList-PSCH-ReconfRqst     PRESENCE optional }|
    { ID id-PUSCHSets-ModifyList-PSCH-ReconfRqst  CRITICALITY reject  TYPE PUSCHSets-ModifyList-PSCH-ReconfRqst  PRESENCE optional }|
    { ID id-PUSCHSets-DeleteList-PSCH-ReconfRqst  CRITICALITY reject  TYPE PUSCHSets-DeleteList-PSCH-ReconfRqst  PRESENCE optional },
    ...
}

PhysicalSharedChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst          CRITICALITY reject  EXTENSION HS-PDSCH-TDD-Information-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst      CRITICALITY reject  EXTENSION Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst      CRITICALITY reject  EXTENSION Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst  CRITICALITY reject  EXTENSION Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-ConfigurationGenerationID                     CRITICALITY reject  EXTENSION ConfigurationGenerationID         PRESENCE optional },
    ...
}

PDSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-AddItem-PSCH-ReconfRqst

PDSCHSets-AddItem-PSCH-ReconfRqst    ::= SEQUENCE {
    pDSCHSet-ID                             PDSCHSet-ID,
    pDSCH-InformationList                   PDSCH-Information-AddList-PSCH-ReconfRqst   OPTIONAL,              -- Mandatory for 3.84Mcps TDD.
Not Applicable to 1.28Mcps TDD
    iE-Extensions                           ProtocolExtensionContainer { {PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst     CRITICALITY reject      EXTENSION   PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst
    PRESENCE    optional}, -- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD
    ...
}

PDSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PDSCH-Information-AddListIEs-PSCH-ReconfRqst }}
```

```
-- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD

PDSCH-Information-AddListIEs-PSCH-ReconfRqst    NBAP-PROTOCOL-IES ::= {
    {ID id-PDSCH-Information-AddListIE-PSCH-ReconfRqst  CRITICALITY reject      TYPE    PDSCH-Information-AddItem-PSCH-ReconfRqst       PRESENCE
    mandatory}
}

PDSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-PSCH-ReconfRqst              DL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
    }

PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationAddItem-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    dL-Code-InformationAddList-PSCH-ReconfRqst              DL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationAddItem-PSCH-ReconfRqst

DL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                                PDSCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst             DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst,
```

```
    iE-Extensions                               ProtocolExtensionContainer { {PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
    }

PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
{ID id-Tstd-indicator           CRITICALITY reject      EXTENSION   TSTD-Indicator      PRESENCE                  optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    tFCI-Presence                       TFCI-Presence,
    dL-Code-InformationAddList-LCR-PSCH-ReconfRqst              DL-Code-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst

DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                            PDSCH-ID,
    tdd-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject      EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
    ...
}

PDSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-ModifyItem-PSCH-ReconfRqst

PDSCHSets-ModifyItem-PSCH-ReconfRqst     ::= SEQUENCE {
    pDSCHSet-ID                             PDSCHSet-ID,
    pDSCH-InformationList                   PDSCH-Information-ModifyList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
PDSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst }}

PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst   CRITICALITY reject  TYPE PDSCH-Information-ModifyItem-PSCH-ReconfRqst       PRESENCE
    optional}|
    {ID id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst      CRITICALITY reject  TYPE PDSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst
    PRESENCE    optional}

}

PDSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                                    RepetitionPeriod                                                    OPTIONAL,
    repetitionLength                                    RepetitionLength                                                    OPTIONAL,
    tdd-PhysicalChannelOffset                           TDD-PhysicalChannelOffset                                           OPTIONAL,
    dL-Timeslot-InformationModifyList-PSCH-ReconfRqst   DL-Timeslot-InformationModifyList-PSCH-ReconfRqst                   OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { {PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
    }

PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst

DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType   OPTIONAL,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    dL-Code-InformationModifyList-PSCH-ReconfRqst               DL-Code-InformationModifyList-PSCH-ReconfRqst         OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationModifyItem-PSCH-ReconfRqst

DL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                                PDSCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                                    RepetitionPeriod                                        OPTIONAL,
```

```
    repetitionLength                                        RepetitionLength                                        OPTIONAL,
    tdd-PhysicalChannelOffset                               TDD-PhysicalChannelOffset                               OPTIONAL,
    dL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst   DL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
    }

PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModifyItem-PSCH-
ReconfRqst

DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                                         TimeSlotLCR,
    midambleShiftLCR                                    MidambleShiftLCR    OPTIONAL,
    tFCI-Presence                                       TFCI-Presence   OPTIONAL,
    dL-Code-LCR-InformationModifyList-PSCH-ReconfRqst   DL-Code-LCR-InformationModifyList-PSCH-ReconfRqst         OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst

DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                                PDSCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject      EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
    ...
}

PDSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-DeleteItem-PSCH-ReconfRqst

PDSCHSets-DeleteItem-PSCH-ReconfRqst     ::= SEQUENCE {
    pDSCHSet-ID                             PDSCHSet-ID,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

PUSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-AddItem-PSCH-ReconfRqst

PUSCHSets-AddItem-PSCH-ReconfRqst    ::= SEQUENCE {
    pUSCHSet-ID                              PUSCHSet-ID,
    pUSCH-InformationList                    PUSCH-Information-AddList-PSCH-ReconfRqst   OPTIONAL,
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
    iE-Extensions                            ProtocolExtensionContainer { {PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst CRITICALITY reject      EXTENSION   PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst
    PRESENCE    optional},  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    ...
}

PUSCH-Information-AddList-PSCH-ReconfRqst ::=  ProtocolIE-Single-Container {{ PUSCH-Information-AddListIEs-PSCH-ReconfRqst }}

PUSCH-Information-AddListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PUSCH-Information-AddListIE-PSCH-ReconfRqst  CRITICALITY reject      TYPE    PUSCH-Information-AddItem-PSCH-ReconfRqst       PRESENCE
    mandatory}
}

PUSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-PSCH-ReconfRqst              UL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { {PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
    }

PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationAddItem-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    uL-Code-InformationAddList-PSCH-ReconfRqst              UL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-PSCH-ReconfRqst
```

```
UL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                            PUSCH-ID,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-PhysicalChannelOffset           TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst          UL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { {PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
    }

PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfULTSLCRs)) OF UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    tFCI-Presence                       TFCI-Presence,
    uL-Code-InformationAddList-LCR-PSCH-ReconfRqst          UL-Code-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst

UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                            PUSCH-ID,
    tdd-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject      EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
    ...
```

```
}

PUSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-ModifyItem-PSCH-ReconfRqst

PUSCHSets-ModifyItem-PSCH-ReconfRqst     ::= SEQUENCE {
    pUSCHSet-ID                                 PUSCHSet-ID,
    pUSCH-InformationList                       PUSCH-Information-ModifyList-PSCH-ReconfRqst,
    iE-Extensions                               ProtocolExtensionContainer { {PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst }}

PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst   CRITICALITY reject      TYPE PUSCH-Information-ModifyItem-PSCH-ReconfRqst      PRESENCE
    optional}|
    {ID id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst      CRITICALITY reject      TYPE PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst
        PRESENCE    optional}
}

PUSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod                    OPTIONAL,
    repetitionLength                        RepetitionLength                    OPTIONAL,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset           OPTIONAL,
    uL-Timeslot-InformationModifyList-PSCH-ReconfRqst               UL-Timeslot-InformationModifyList-PSCH-ReconfRqst    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { {PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
        ...
    }

PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst

UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType   OPTIONAL,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    uL-Code-InformationModifyList-PSCH-ReconfRqst               UL-Code-InformationModifyList-PSCH-ReconfRqst         OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationModifyItem-PSCH-ReconfRqst
```

```
UL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                            PUSCH-ID,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod        OPTIONAL,
    repetitionLength                    RepetitionLength        OPTIONAL,
    tdd-PhysicalChannelOffset           TDD-PhysicalChannelOffset   OPTIONAL,
    uL-Timeslot-InformationModifyList-LCR-PSCH-ReconfRqst           UL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
        ...
    }

PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-Timeslot-LCR-InformationModifyItem-PSCH-
ReconfRqst

UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR    OPTIONAL,
    tFCI-Presence                       TFCI-Presence       OPTIONAL,
    uL-Code-LCR-InformationModifyList-PSCH-ReconfRqst               UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst

UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                            PUSCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    {ID id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR        CRITICALITY reject      EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR   PRESENCE optional},
    ...
}

PUSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-DeleteItem-PSCH-ReconfRqst

PUSCHSets-DeleteItem-PSCH-ReconfRqst     ::= SEQUENCE {
    pUSCHSet-ID                             PUSCHSet-ID,
    iE-Extensions                           ProtocolExtensionContainer { {PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-PDSCH-TDD-Information-PSCH-ReconfRqst ::= SEQUENCE {
    dL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst                 DL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst    OPTIONAL,
    dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst             DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-PDSCH-TDD-Information-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
        ...
    }

HS-PDSCH-TDD-Information-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst

DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst::= SEQUENCE {
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType           MidambleShiftAndBurstType,
    dl-HS-PDSCH-Codelist-PSCH-ReconfRqst    DL-HS-PDSCH-Codelist-PSCH-ReconfRqst,
    maxHSDSCH-HSSCCH-Power              MaximumTransmissionPower    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Codelist-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSPDSCHs)) OF TDD-ChannelisationCode

DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-
ReconfRqst

DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst::= SEQUENCE {
    timeSlot                            TimeSlotLCR,
    midambleShiftAndBurstType           MidambleShiftLCR,
    dl-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst    DL-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst,
    maxHSDSCH-HSSCCH-Power                  MaximumTransmissionPower    OPTIONAL,
```

```
    iE-Extensions                           ProtocolExtensionContainer { { DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSPDSCHs)) OF TDD-ChannelisationCode

Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst::= SEQUENCE {
    hS-SCCH-Information-PSCH-ReconfRqst     HS-SCCH-Information-PSCH-ReconfRqst     OPTIONAL,
    hS-SCCH-Information-LCR-PSCH-ReconfRqst HS-SCCH-Information-LCR-PSCH-ReconfRqst     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-Information-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationItem-PSCH-ReconfRqst

HS-SCCH-InformationItem-PSCH-ReconfRqst  ::= SEQUENCE {
    hS-SCCH-ID                              HS-SCCH-ID,
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    hS-SCCH-MaxPower                        DL-Power,
    hS-SICH-Information                     HS-SICH-Information-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { HS-SCCH-InformationItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SCCH-InformationItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Information-PSCH-ReconfRqst  ::= SEQUENCE {
    hsSICH-ID                               HS-SICH-ID,
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { HS-SICH-Information-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

HS-SICH-Information-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-Information-LCR-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst
```

```
HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst  ::= SEQUENCE {
    hS-SCCH-ID                              HS-SCCH-ID,
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    first-TDD-ChannelisationCode            TDD-ChannelisationCode,
    second-TDD-ChannelisationCode           TDD-ChannelisationCode,
    hS-SCCH-MaxPower                        DL-Power,
    hS-SICH-Information-LCR                 HS-SICH-Information-LCR-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Information-LCR-PSCH-ReconfRqst  ::= SEQUENCE {
    hsSICH-ID                               HS-SICH-ID,
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { HS-SICH-Information-LCR-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SICH-Information-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst::= SEQUENCE {
    hS-SCCH-InformationModify-PSCH-ReconfRqst       HS-SCCH-InformationModify-PSCH-ReconfRqst   OPTIONAL,
    hS-SCCH-InformationModify-LCR-PSCH-ReconfRqst   HS-SCCH-InformationModify-LCR-PSCH-ReconfRqst                  OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-InformationModify-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationModifyItem-PSCH-ReconfRqst

HS-SCCH-InformationModifyItem-PSCH-ReconfRqst    ::= SEQUENCE {
    hS-SCCH-ID                              HS-SCCH-ID,
    timeSlot                                TimeSlot    OPTIONAL,
    midambleShiftAndBurstType               MidambleShiftAndBurstType   OPTIONAL,
    tdd-ChannelisationCode                  TDD-ChannelisationCode  OPTIONAL,
    hS-SCCH-MaxPower                        DL-Power    OPTIONAL,
    hS-SICH-Information                     HS-SICH-InformationModify-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-SCCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}
```

```
HS-SCCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-InformationModify-PSCH-ReconfRqst    ::= SEQUENCE {
    hsSICH-ID                               HS-SICH-ID,
    timeSlot                                TimeSlot    OPTIONAL,
    midambleShiftAndBurstType               MidambleShiftAndBurstType   OPTIONAL,
    tdd-ChannelisationCode                  TDD-ChannelisationCode  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-SICH-InformationModify-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

HS-SICH-InformationModify-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-InformationModify-LCR-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst

HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst    ::= SEQUENCE {
    hS-SCCH-ID                              HS-SCCH-ID,
    timeSlotLCR                             TimeSlotLCR     OPTIONAL,
    midambleShiftLCR                        MidambleShiftLCR    OPTIONAL,
    first-TDD-ChannelisationCode            TDD-ChannelisationCode  OPTIONAL,
    second-TDD-ChannelisationCode           TDD-ChannelisationCode  OPTIONAL,
    hS-SCCH-MaxPower                        DL-Power    OPTIONAL,
    hS-SICH-Information-LCR                 HS-SICH-InformationModify-LCR-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-InformationModify-LCR-PSCH-ReconfRqst    ::= SEQUENCE {
    hsSICH-ID                               HS-SICH-ID,
    timeSlotLCR                             TimeSlotLCR     OPTIONAL,
    midambleShiftLCR                        MidambleShiftLCR    OPTIONAL,
    tdd-ChannelisationCode              TDD-ChannelisationCode  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-SICH-InformationModify-LCR-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SICH-InformationModify-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst

Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst    ::= SEQUENCE {
    hS-SCCH-ID                              HS-SCCH-ID,
```

```
    iE-Extensions                               ProtocolExtensionContainer { { Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE
--
-- **************************************************************

PhysicalSharedChannelReconfigurationResponse ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container  {{PhysicalSharedChannelReconfigurationResponse-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationResponse-Extensions}}                  OPTIONAL,
    ...
}

PhysicalSharedChannelReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore      TYPE        CriticalityDiagnostics            PRESENCE optional },
    ...
}

PhysicalSharedChannelReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************************

PhysicalSharedChannelReconfigurationFailure ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container  {{PhysicalSharedChannelReconfigurationFailure-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationFailure-Extensions}}                  OPTIONAL,
    ...
}

PhysicalSharedChannelReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CauseLevel-PSCH-ReconfFailure        CRITICALITY ignore  TYPE CauseLevel-PSCH-ReconfFailure          PRESENCE mandatory }|
    { ID    id-CriticalityDiagnostics       CRITICALITY ignore      TYPE    CriticalityDiagnostics                PRESENCE optional },
    ...
}

PhysicalSharedChannelReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-PSCH-ReconfFailure ::= CHOICE {
```

```
    generalCause            GeneralCauseList-PSCH-ReconfFailure,
    setSpecificCause        SetSpecificCauseList-PSCH-ReconfFailureTDD,
    ...
}

GeneralCauseList-PSCH-ReconfFailure ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-PSCH-ReconfFailure-ExtIEs} }          OPTIONAL,
    ...
}

GeneralCauseItem-PSCH-ReconfFailure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SetSpecificCauseList-PSCH-ReconfFailureTDD ::= SEQUENCE {
    unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD                  OPTIONAL,
    unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD                  OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxNrOfPDSCHSets)) OF ProtocolIE-Single-Container {{ Unsuccessful-
PDSCHSetItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-PDSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD  CRITICALITY ignore  TYPE Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDDPRESENCE
mandatory}
}

Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    pDSCHSet-ID             PDSCHSet-ID,
    cause                   Cause,
    iE-Extensions           ProtocolExtensionContainer { {Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} }   OPTIONAL,
    ...
}

Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxNrOfPUSCHSets)) OF ProtocolIE-Single-Container {{ Unsuccessful-
PUSCHSetItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-PUSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD  CRITICALITY ignore  TYPE Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDDPRESENCE
mandatory}
}
```

```
Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    pUSCHSet-ID             PUSCHSet-ID,
    cause                   Cause,
    iE-Extensions           ProtocolExtensionContainer { {Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} }   OPTIONAL,
    ...
}

Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RESET REQUEST
--
-- **************************************************************

ResetRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{ResetRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResetRequest-Extensions}}     OPTIONAL,
    ...
}

ResetRequest-IEs NBAP-PROTOCOL-IES ::= {
    {ID id-ResetIndicator       CRITICALITY ignore      TYPE    ResetIndicator      PRESENCE    mandatory},
    ...
}

ResetRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ResetIndicator ::= CHOICE {
    communicationContext            CommunicationContextList-Reset,
    communicationControlPort        CommunicationControlPortList-Reset,
    nodeB                           NULL,
    ...
}

CommunicationContextList-Reset ::= SEQUENCE {
    communicationContextInfoList-Reset      CommunicationContextInfoList-Reset,
    iE-Extensions                           ProtocolExtensionContainer  { {CommunicationContextItem-Reset-ExtIEs} }   OPTIONAL,
    ...
}
```

```
CommunicationContextItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCommunicationContext))    OF ProtocolIE-Single-Container {{
CommunicationContextInfoItemIE-Reset }}

CommunicationContextInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationContextInfoItem-Reset       CRITICALITY reject      TYPE CommunicationContextInfoItem-Reset   PRESENCE mandatory}
}

CommunicationContextInfoItem-Reset ::= SEQUENCE {
    communicationContextType-Reset          CommunicationContextType-Reset,
    iE-Extensions                           ProtocolExtensionContainer  { { CommunicationContextInfoItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

CommunicationContextInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationContextType-Reset ::= CHOICE {
    cRNC-CommunicationContextID             CRNC-CommunicationContextID,
    nodeB-CommunicationContextID            NodeB-CommunicationContextID,
    ...
}

CommunicationControlPortList-Reset ::= SEQUENCE {
    communicationControlPortInfoList-Reset      CommunicationControlPortInfoList-Reset,
    iE-Extensions                               ProtocolExtensionContainer  { {CommunicationControlPortItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

CommunicationControlPortItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationControlPortInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCCPinNodeB))  OF ProtocolIE-Single-Container
{{CommunicationControlPortInfoItemIE-Reset }}
```

```
CommunicationControlPortInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationControlPortInfoItem-Reset       CRITICALITY reject      TYPE CommunicationControlPortInfoItem-Reset    PRESENCE mandatory}
}

CommunicationControlPortInfoItem-Reset ::= SEQUENCE {
    communicationControlPortID          CommunicationControlPortID,
    iE-Extensions                       ProtocolExtensionContainer { {CommunicationControlPortInfoItem-Reset-ExtIEs} } OPTIONAL,
    ...
}

CommunicationControlPortInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RESET RESPONSE
--
-- **************************************************************

ResetResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{ResetResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResetResponse-Extensions}}            OPTIONAL,
    ...
}

ResetResponse-IEs NBAP-PROTOCOL-IES ::= {
    {ID id-CriticalityDiagnostics       CRITICALITY     ignore      TYPE    CriticalityDiagnostics                  PRESENCE optional},
    ...
}

ResetResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION REQUEST
--
-- **************************************************************

InformationExchangeInitiationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeInitiationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationRequest-Extensions}}            OPTIONAL,
    ...
}

InformationExchangeInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
```

```
    { ID    id-InformationExchangeID                                CRITICALITY reject          TYPE                InformationExchangeID
                PRESENCE    mandatory   }|
    { ID    id-InformationExchangeObjectType-InfEx-Rqst         CRITICALITY reject          TYPE                    InformationExchangeObjectType-
InfEx-Rqst      PRESENCE    mandatory   }|
    { ID    id-InformationType                      CRITICALITY reject                  TYPE    InformationType                 PRESENCE mandatory
    }|
    { ID    id-InformationReportCharacteristics                     CRITICALITY reject          TYPE                InformationReportCharacteristics
                PRESENCE    mandatory},
    ...
}

InformationExchangeInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
    cell                            Cell-InfEx-Rqst,
    ...
}

Cell-InfEx-Rqst ::= SEQUENCE {
    c-ID                            C-ID,
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-InfEx-Rqst-ExtIEs} }                       OPTIONAL,
    ...
}

CellItem-InfEx-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION RESPONSE
--
-- **************************************************************

InformationExchangeInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeInitiationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationResponse-Extensions}}          OPTIONAL,
    ...
}

InformationExchangeInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                                CRITICALITY ignore          TYPE                InformationExchangeID
                PRESENCE    mandatory   }|
    { ID    id-InformationExchangeObjectType-InfEx-Rsp      CRITICALITY ignore          TYPE    InformationExchangeObjectType-InfEx-Rsp    PRESENCE
    optional    }|
    { ID    id-CriticalityDiagnostics                   CRITICALITY ignore          TYPE    CriticalityDiagnostics              PRESENCE optional },
    ...
}

InformationExchangeInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
    cell                        Cell-InfEx-Rsp,
    ...
 }

Cell-InfEx-Rsp ::= SEQUENCE {
    requestedDataValue              RequestedDataValue,
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-InfEx-Rsp-ExtIEs} }                      OPTIONAL,
    ...
 }

CellItem-InfEx-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION FAILURE
--
-- **************************************************************

InformationExchangeInitiationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeInitiationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationFailure-Extensions}}           OPTIONAL,
    ...
}

InformationExchangeInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                CRITICALITY     ignore          TYPE    InformationExchangeID           PRESENCE mandatory   }|
    { ID    id-Cause                        CRITICALITY     ignore          TYPE    Cause                                   PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics          PRESENCE optional },
    ...
}

InformationExchangeInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION REPORT
--
-- **************************************************************

InformationReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationReport-Extensions}}        OPTIONAL,
    ...
}

InformationReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                            CRITICALITY ignore          TYPE                    InformationExchangeID
                PRESENCE    mandatory   }|
```

```
    { ID    id-InformationExchangeObjectType-InfEx-Rprt     CRITICALITY ignore          TYPE    InformationExchangeObjectType-InfEx-Rprt   PRESENCE
    mandatory   },
    ...
}

InformationReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
    cell                            Cell-Inf-Rprt,
    ...
 }

Cell-Inf-Rprt ::= SEQUENCE {
    requestedDataValueInformation   RequestedDataValueInformation,
    iE-Extensions                   ProtocolExtensionContainer  {{ CellItem-Inf-Rprt-ExtIEs }}                    OPTIONAL,
    ...

 }

CellItem-Inf-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE TERMINATION REQUEST
--
-- **************************************************************

InformationExchangeTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeTerminationRequest-Extensions}}          OPTIONAL,
    ...
}

InformationExchangeTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID            CRITICALITY     ignore              TYPE    InformationExchangeID        PRESENCE mandatory},
    ...
}

InformationExchangeTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE FAILURE INDICATION
--
-- **************************************************************

InformationExchangeFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeFailureIndication-IEs}},
```

```
    protocolExtensions          ProtocolExtensionContainer  {{InformationExchangeFailureIndication-Extensions}}            OPTIONAL,
    ...
}

InformationExchangeFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID            CRITICALITY ignore          TYPE    InformationExchangeID               PRESENCE mandatory   }|
    { ID    id-Cause                    CRITICALITY ignore          TYPE    Cause                                   PRESENCE mandatory   },
    ...
}

InformationExchangeFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION INITIATION REQUEST TDD
--
-- **************************************************************

CellSynchronisationInitiationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationInitiationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationInitiationRequestTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationInitiationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD      CRITICALITY     reject                      EXTENSION   SYNCDlCodeId-
TransInitLCR-CellSyncInitiationRqstTDD      PRESENCE    optional    }|  -- Applicable to 1.28Mcps TDD only
    { ID    id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD        CRITICALITY     reject                  EXTENSION   SYNCDlCodeId-
MeasureInitLCR-CellSyncInitiationRqstTDD        PRESENCE    optional    },  -- Applicable to 1.28Mcps TDD only
    ...
}

CellSynchronisationInitiationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                         CRITICALITY     reject      TYPE    C-ID                                    PRESENCE mandatory   }|
    { ID    id-cellSyncBurstRepetitionPeriod            CRITICALITY     reject      TYPE    CellSyncBurstRepetitionPeriod   PRESENCE mandatory   }|
    { ID    id-timeslotInfo-CellSyncInitiationRqstTDD   CRITICALITY     reject      TYPE    TimeslotInfo-CellSyncInitiationRqstTDD   PRESENCE
    optional    }|  -- Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.
    { ID    id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD     CRITICALITY     reject      TYPE                CellSyncBurstTransInit-
CellSyncInitiationRqstTDD       PRESENCE    optional    }|  -- Applicable to 3.84Mcps TDD only
    { ID    id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD       CRITICALITY     reject                      TYPE  CellSyncBurstMeasureInit-
CellSyncInitiationRqstTDD       PRESENCE    optional    },  -- Applicable to 3.84Mcps TDD only
    ...
}

CellSyncBurstTransInit-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBTransmissionID                       CSBTransmissionID,
    sfn                                     SFN,
    cellSyncBurstCode                       CellSyncBurstCode,
    cellSyncBurstCodeShift                  CellSyncBurstCodeShift,
    initialDLTransPower                     DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstTransInit-CellSyncInitiationRqstTDD-ExtIEs} }   OPTIONAL,
    ...
```

```
 }

CellSyncBurstTransInit-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeslotInfo-CellSyncInitiationRqstTDD::= SEQUENCE (SIZE (1..15)) OF TimeSlot

CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBMeasurementID                        CSBMeasurementID,
    cellSyncBurstCode                       CellSyncBurstCode,
    cellSyncBurstCodeShift                  CellSyncBurstCodeShift,
    synchronisationReportType               SynchronisationReportType,
    sfn                                     SFN                             OPTIONAL,
    synchronisationReportCharacteristics    SynchronisationReportCharacteristics,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
 }

CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBTransmissionID                       CSBTransmissionID,
    sfn                                     SFN,
    uARFCN                                  UARFCN,
    sYNCDlCodeId                            SYNCDlCodeId,
    dwPCH-Power                             DwPCH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBMeasurementID                        CSBMeasurementID,
    sfn                                     SFN             OPTIONAL,
    uARFCN                                  UARFCN,
    sYNCDlCodeId                            SYNCDlCodeId,
    synchronisationReportType               SynchronisationReportType,
    synchronisationReportCharacteristics    SynchronisationReportCharacteristics,
    iE-Extensions                           ProtocolExtensionContainer { { SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- CELL SYNCHRONISATION INITIATION RESPONSE TDD
--
-- **************************************************************

CellSynchronisationInitiationResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationInitiationResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationInitiationResponseTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationInitiationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationInitiationResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics                   CRITICALITY     ignore      TYPE    CriticalityDiagnostics                      PRESENCE
    optional    },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION INITIATION FAILURE TDD
--
-- **************************************************************

CellSynchronisationInitiationFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationInitiationFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationInitiationFailureTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationInitiationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationInitiationFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                            CRITICALITY     ignore      TYPE    Cause                                   PRESENCE mandatory
    }|
    { ID    id-CriticalityDiagnostics           CRITICALITY     ignore      TYPE    CriticalityDiagnostics            PRESENCE optional },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD
--
-- **************************************************************

CellSynchronisationReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationReconfigurationRequestTDD-IEs}},
```

```
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationReconfigurationRequestTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD              CRITICALITY reject  EXTENSION              NSubCyclesPerCyclePeriod
                        PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD            CRITICALITY reject  EXTENSION          SYNCDlCodeIdTransReconfInfoLCR-
CellSyncReconfRqstTDD           PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD        CRITICALITY reject  EXTENSION          SYNCDlCodeIdMeasInfoLCR-
CellSyncReconfRqstTDD       PRESENCE optional },    -- Applicable to 1.28Mcps TDD only
    ...
}

CellSynchronisationReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                         CRITICALITY     reject      TYPE    C-ID                                        PRESENCE    mandatory
    }|
    { ID    id-TimeSlot                     CRITICALITY     reject      TYPE    TimeSlot                                PRESENCE    mandatory   }|
    -- Applicable to 3.84Mcps TDD only. For 1.28Mcps TDD, the CRNC should set this to 0 and the Node B shall ignore it.
    { ID    id-NCyclesPerSFNperiod          CRITICALITY     reject      TYPE    NCyclesPerSFNperiod                     PRESENCE    mandatory   }|
    { ID    id-NRepetitionsPerCyclePeriod   CRITICALITY     reject      TYPE    NRepetitionsPerCyclePeriod PRESENCE   mandatory   }|
    { ID    id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD       CRITICALITY     reject                      TYPE
    CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD      PRESENCE    optional    }|  -- Applicable to 3.84Mcps TDD only
    { ID    id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD       CRITICALITY     reject                  TYPE  CellSyncBurstMeasInfo-
CellSyncReconfRqstTDD       PRESENCE    optional    },  -- Applicable to 3.84Mcps TDD only
    ...
}

CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstTransInfoItem-
CellSyncReconfRqstTDD

CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBTransmissionID                       CSBTransmissionID,
    syncFrameNumberToTransmit               SyncFrameNumber,
    cellSyncBurstCode                       CellSyncBurstCode           OPTIONAL,
    cellSyncBurstCodeShift                  CellSyncBurstCodeShift      OPTIONAL,
    dlTransPower                            DL-Power                    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


CellSyncBurstMeasInfo-CellSyncReconfRqstTDD ::= SEQUENCE {
    cellSyncBurstMeasInfoList-CellSyncReconfRqstTDD     CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD,
    synchronisationReportType                           SynchronisationReportTypeIE             OPTIONAL,
    synchronisationReportCharacteristics                SynchronisationReportCharacteristicsIE  OPTIONAL,
    iE-Extensions                                       ProtocolExtensionContainer { { CellSyncBurstMeasInfo-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
```

```
}

CellSyncBurstMeasInfo-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD ::= ProtocolIE-Single-Container {{ CellSyncBurstMeasInfoListIEs-CellSyncReconfRqstTDD }}

CellSyncBurstMeasInfoListIEs-CellSyncReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD   CRITICALITY reject    TYPE CellSyncBurstMeasInfoListIE-CellSyncReconfRqstTDD
    PRESENCE mandatory }
}

SynchronisationReportTypeIE ::= ProtocolIE-Single-Container {{ SynchronisationReportTypeIEs }}

SynchronisationReportTypeIEs NBAP-PROTOCOL-IES ::= {
    { ID id-SynchronisationReportType                   CRITICALITY reject  TYPE SynchronisationReportType                          PRESENCE
    mandatory }
}

SynchronisationReportCharacteristicsIE ::= ProtocolIE-Single-Container {{ SynchronisationReportCharacteristicsIEs }}

SynchronisationReportCharacteristicsIEs NBAP-PROTOCOL-IES ::= {
    { ID id-SynchronisationReportCharacteristics        CRITICALITY reject  TYPE SynchronisationReportCharacteristics       PRESENCE mandatory }
}


CellSyncBurstMeasInfoListIE-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstMeasInfoItem-
CellSyncReconfRqstTDD

CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    syncFrameNrToReceive                    SyncFrameNumber,
    syncBurstInfo                           CellSyncBurstInfoList-CellSyncReconfRqstTDD,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstInfoList-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfReceptsPerSyncFrame)) OF CellSyncBurstInfoItem-CellSyncReconfRqstTDD

CellSyncBurstInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBMeasurementID                        CSBMeasurementID,
    cellSyncBurstCode                       CellSyncBurstCode,
    cellSyncBurstCodeShift                  CellSyncBurstCodeShift,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstInfoItem-CellSyncReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

CellSyncBurstInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSyncFramesLCR)) OF SYNCDlCodeIdTransReconfItemLCR-
CellSyncReconfRqstTDD

SYNCDlCodeIdTransReconfItemLCR-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBTransmissionID                       CSBTransmissionID,
    syncFrameNumberforTransmit              SyncFrameNumber,
    uARFCN                                  UARFCN,
    sYNCDlCodeId                            SYNCDlCodeId    OPTIONAL,
    dwPCH-Power                             DwPCH-Power     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


SYNCDlCodeIdMeasInfoLCR-CellSyncReconfRqstTDD::= SEQUENCE {

    sYNCDlCodeIdMeasInfoList                SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD,
    synchronisationReportType               SynchronisationReportType                       OPTIONAL,
    synchronisationReportCharacteristics    SynchronisationReportCharacteristics    OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer   { { SYNCDlCodeIdMeasInfoLCR-CellSyncReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

SYNCDlCodeIdMeasInfoLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD::= SEQUENCE (SIZE (1.. maxNrOfSyncDLCodesLCR)) OF SYNCDlCodeIdMeasInfoItem-CellSyncReconfRqstTDD

SYNCDlCodeIdMeasInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    syncFrameNrToReceive                SyncFrameNumber,
    sYNCDlCodeIdInfoLCR                 SYNCDlCodeIdInfoListLCR-CellSyncReconfRqstTDD,
    iE-Extensions                       ProtocolExtensionContainer { { SYNCDlCodeIdMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

SYNCDlCodeIdMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeIdInfoListLCR-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfReceptionsperSyncFrameLCR)) OF SYNCDlCodeIdInfoItemLCR-
CellSyncReconfRqstTDD

SYNCDlCodeIdInfoItemLCR-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBMeasurementID                        CSBMeasurementID,
    sYNCDlCodeId                            SYNCDlCodeId,
    uARFCN                                  UARFCN,
    propagationDelayCompensation            TimingAdjustmentValueLCR        OPTIONAL,
```

```
    iE-Extensions                               ProtocolExtensionContainer { { SYNCDlCodeIdInfoItemLCR-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

SYNCDlCodeIdInfoItemLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION RECONFIGURATION RESPONSE TDD
--
-- **************************************************************

CellSynchronisationReconfigurationResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationReconfigurationResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationReconfigurationResponseTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationReconfigurationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationReconfigurationResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics                   CRITICALITY     ignore      TYPE    CriticalityDiagnostics       PRESENCE optional },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION RECONFIGURATION FAILURE TDD
--
-- **************************************************************

CellSynchronisationReconfigurationFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationReconfigurationFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationReconfigurationFailureTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationReconfigurationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationReconfigurationFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                            CRITICALITY     ignore      TYPE    Cause                                   PRESENCE mandatory
    }|
    { ID    id-CriticalityDiagnostics           CRITICALITY     ignore      TYPE    CriticalityDiagnostics            PRESENCE optional },
    ...
}

-- **************************************************************
```

```
--
-- CELL SYNCHRONISATION ADJUSTMENT REQUEST TDD
--
-- **************************************************************

CellSynchronisationAdjustmentRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationAdjustmentRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationAdjustmentRequestTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationAdjustmentRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationAdjustmentRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CellAdjustmentInfo-SyncAdjustmntRqstTDD  CRITICALITY ignore  TYPE CellAdjustmentInfo-SyncAdjustmentRqstTDD PRESENCE mandatory   },
    ...
}

CellAdjustmentInfo-SyncAdjustmentRqstTDD::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ CellAdjustmentInfoItemIE-
SyncAdjustmntRqstTDD }}

CellAdjustmentInfoItemIE-SyncAdjustmntRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD        CRITICALITY     ignore          TYPE                    CellAdjustmentInfoItem-
SyncAdjustmentRqstTDD       PRESENCE    mandatory }
}

CellAdjustmentInfoItem-SyncAdjustmentRqstTDD ::= SEQUENCE {
    c-ID                                C-ID,
    frameAdjustmentValue                FrameAdjustmentValue        OPTIONAL,
    timingAdjustmentValue               TimingAdjustmentValue       OPTIONAL,
    dLTransPower                        DL-Power                    OPTIONAL, -- Applicable to 3.84Mcps TDD only
    sfn                                 SFN                         OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { CellAdjustmentInfoItem-SyncAdjustmntRqstTDD-ExtIEs} }     OPTIONAL,
    ...
 }

CellAdjustmentInfoItem-SyncAdjustmntRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DwPCH-Power                 CRITICALITY ignore  EXTENSION DwPCH-Power           PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
    { ID id-TimingAdjustmentValueLCR    CRITICALITY ignore  EXTENSION TimingAdjustmentValueLCR  PRESENCE optional }, -- Applicable to 1.28Mcps TDD
only
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION ADJUSTMENT RESPONSE TDD
--
-- **************************************************************

CellSynchronisationAdjustmentResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationAdjustmentResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationAdjustmentResponseTDD-Extensions}}     OPTIONAL,
```

```
    ...
}

CellSynchronisationAdjustmentResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationAdjustmentResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics           CRITICALITY     ignore      TYPE    CriticalityDiagnostics                  PRESENCE optional },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION ADJUSTMENT FAILURE TDD
--
-- **************************************************************

CellSynchronisationAdjustmentFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationAdjustmentFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationAdjustmentFailureTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationAdjustmentFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationAdjustmentFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CauseLevel-SyncAdjustmntFailureTDD   CRITICALITY ignore      TYPE    CauseLevel-SyncAdjustmntFailureTDD   PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics               CRITICALITY ignore      TYPE    CriticalityDiagnostics                       PRESENCE optional
    },
    ...
}

CauseLevel-SyncAdjustmntFailureTDD ::= CHOICE {
    generalCause            GeneralCauseList-SyncAdjustmntFailureTDD,
    cellSpecificCause       CellSpecificCauseList-SyncAdjustmntFailureTDD,
    ...
}

GeneralCauseList-SyncAdjustmntFailureTDD::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseList-SyncAdjustmntFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

GeneralCauseList-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSpecificCauseList-SyncAdjustmntFailureTDD ::= SEQUENCE {
    unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD       Unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD,
```

```
    iE-Extensions                           ProtocolExtensionContainer { { CellSpecificCauseList-SyncAdjustmntFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

CellSpecificCauseList-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB))             OF ProtocolIE-Single-Container
{{ Unsuccessful-cell-InformationRespItemIE-SyncAdjustmntFailureTDD }}

Unsuccessful-cell-InformationRespItemIE-SyncAdjustmntFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD       CRITICALITY                   ignore      TYPE  Unsuccessful-
cell-InformationRespItem-SyncAdjustmntFailureTDD       PRESENCE    mandatory},
    ...
}

Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD::= SEQUENCE {
    c-ID                                    C-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD-
ExtIEs} }       OPTIONAL,
    ...
}

Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION TERMINATION REQUEST TDD
--
-- **************************************************************

CellSynchronisationTerminationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationTerminationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationTerminationRequestTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationTerminationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationTerminationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                         CRITICALITY     ignore      TYPE    C-ID                                    PRESENCE mandatory   }|
    { ID    id-CSBTransmissionID            CRITICALITY     ignore      TYPE    CSBTransmissionID                       PRESENCE optional    }|
    { ID    id-CSBMeasurementID             CRITICALITY     ignore      TYPE    CSBMeasurementID                        PRESENCE optional    },
    ...
}

-- **************************************************************
```

```
--
-- CELL SYNCHRONISATION FAILURE INDICATION TDD
--
-- **************************************************************

CellSynchronisationFailureIndicationTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationFailureIndicationTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationFailureIndicationTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationFailureIndicationTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationFailureIndicationTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                         CRITICALITY     ignore      TYPE    C-ID                                    PRESENCE mandatory   }|
    { ID    id-CSBTransmissionID            CRITICALITY     ignore      TYPE    CSBTransmissionID                       PRESENCE optional    }|
    { ID    id-CSBMeasurementID             CRITICALITY     ignore      TYPE    CSBMeasurementID                        PRESENCE optional    }|
    { ID    id-Cause                        CRITICALITY     ignore      TYPE    Cause                                   PRESENCE mandatory   },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION REPORT TDD
--
-- **************************************************************

CellSynchronisationReportTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CellSynchronisationReportTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationReportTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationReportTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationReportTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CellSyncInfo-CellSyncReprtTDD        CRITICALITY ignore      TYPE    CellSyncInfo-CellSyncReprtTDD        PRESENCE mandatory   },
    ...
}


CellSyncInfo-CellSyncReprtTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB))   OF CellSyncInfoItemIE-CellSyncReprtTDD

CellSyncInfoItemIE-CellSyncReprtTDD ::= SEQUENCE {
    c-ID-CellSyncReprtTDD               C-ID-IE-CellSyncReprtTDD,
    syncReportType-CellSyncReprtTDD     SyncReportTypeIE-CellSyncReprtTDD       OPTIONAL,
    ...
}

C-ID-IE-CellSyncReprtTDD ::= ProtocolIE-Single-Container {{ C-ID-IEs-CellSyncReprtTDD }}
```

```
C-ID-IEs-CellSyncReprtTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                         CRITICALITY ignore  TYPE C-ID
    PRESENCE    mandatory}
}

SyncReportTypeIE-CellSyncReprtTDD::= ProtocolIE-Single-Container {{ SyncReportTypeIEs-CellSyncReprtTDD }}

SyncReportTypeIEs-CellSyncReprtTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-SyncReportType-CellSyncReprtTDD      CRITICALITY ignore      TYPE SyncReportType-CellSyncReprtTDD      PRESENCE mandatory}
}


SyncReportType-CellSyncReprtTDD ::= CHOICE {
    intStdPhSyncInfo-CellSyncReprtTDD       IntStdPhCellSyncInfo-CellSyncReprtTDD,
    lateEntrantCell             NULL,
    frequencyAcquisition        NULL,
    ...
}

IntStdPhCellSyncInfo-CellSyncReprtTDD ::= SEQUENCE {
    cellSyncBurstMeasuredInfo                   CellSyncBurstMeasInfoList-CellSyncReprtTDD,
    iE-Extensions                               ProtocolExtensionContainer { { IntStdPhCellSyncInfoList-CellSyncReprtTDD-ExtIEs} }   OPTIONAL,
    ...
}

IntStdPhCellSyncInfoList-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-AccumulatedClockupdate-CellSyncReprtTDD     CRITICALITY ignore  EXTENSION   TimingAdjustmentValue       PRESENCE optional }|
    { ID id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD CRITICALITY  ignore EXTENSION    SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD   PRESENCE
optional }, -- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.
    ...
}

CellSyncBurstMeasInfoList-CellSyncReprtTDD ::= SEQUENCE (SIZE (0.. maxNrOfCellSyncBursts)) OF CellSyncBurstMeasInfoItem-CellSyncReprtTDD --
Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.

CellSyncBurstMeasInfoItem-CellSyncReprtTDD ::= SEQUENCE {
    sFN                                     SFN,
    cellSyncBurstInfo-CellSyncReprtTDD      SEQUENCE (SIZE (1..maxNrOfReceptsPerSyncFrame)) OF CellSyncBurstInfo-CellSyncReprtTDD,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstMeasInfoItem-CellSyncReprtTDD-ExtIEs} }   OPTIONAL,
    ...
}

CellSyncBurstMeasInfoItem-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstInfo-CellSyncReprtTDD ::= CHOICE {
    cellSyncBurstAvailable      CellSyncBurstAvailable-CellSyncReprtTDD,
    cellSyncBurstNotAvailable   NULL,
    ...
}

CellSyncBurstAvailable-CellSyncReprtTDD ::= SEQUENCE {
```

```
    cellSyncBurstTiming         CellSyncBurstTiming,
    cellSyncBurstSIR            CellSyncBurstSIR,
    iE-Extensions               ProtocolExtensionContainer { { CellSyncBurstAvailable-CellSyncReprtTDD-ExtIEs} }      OPTIONAL,
    ...
}

CellSyncBurstAvailable-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD ::= SEQUENCE (SIZE (0..maxNrOfSyncFramesLCR)) OF SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD
-- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.

SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD ::= SEQUENCE {
    sFN                                 SFN,
    syncDLCodeIdInfo-CellSyncReprtTDD       SyncDLCodeIdInfo-CellSyncReprtTDD,
    iE-Extensions                           ProtocolExtensionContainer { { SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD-ExtIEs } }     OPTIONAL,
    ...
}

SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdInfo-CellSyncReprtTDD ::= SEQUENCE (SIZE (1..maxNrOfReceptionsperSyncFrameLCR)) OF SyncDLCodeIdItem-CellSyncReprtTDD

SyncDLCodeIdItem-CellSyncReprtTDD ::= CHOICE {
    syncDLCodeIdAvailable               SyncDLCodeIdAvailable-CellSyncReprtTDD,
    syncDLCodeIDNotAvailable            NULL,
    ...
}

SyncDLCodeIdAvailable-CellSyncReprtTDD ::= SEQUENCE {
    syncDLCodeIdTiming          CellSyncBurstTimingLCR,
    syncDLCodeIdSIR             CellSyncBurstSIR,
    iE-Extensions               ProtocolExtensionContainer { { SyncDLCodeIdAvailable-CellSyncReprtTDD-ExtIEs } }      OPTIONAL,
    ...
}

SyncDLCodeIdAvailable-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- BEARER REARRANGEMENT INDICATION
--
-- **************************************************************

BearerRearrangementIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{BearerRearrangementIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{BearerRearrangementIndication-Extensions}}                 OPTIONAL,
    ...
}
```

```
BearerRearrangementIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                 CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory } |
    { ID id-SignallingBearerRequestIndicator            CRITICALITY ignore  TYPE SignallingBearerRequestIndicator          PRESENCE optional } |
    { ID id-DCH-RearrangeList-Bearer-RearrangeInd       CRITICALITY ignore  TYPE DCH-RearrangeList-Bearer-RearrangeInd      PRESENCE optional } |
    { ID id-DSCH-RearrangeList-Bearer-RearrangeInd      CRITICALITY ignore  TYPE DSCH-RearrangeList-Bearer-RearrangeInd     PRESENCE optional } |
    -- TDD only.
    { ID id-USCH-RearrangeList-Bearer-RearrangeInd      CRITICALITY ignore  TYPE USCH-RearrangeList-Bearer-RearrangeInd     PRESENCE optional } |
    -- TDD only.
    { ID id-HSDSCH-RearrangeList-Bearer-RearrangeInd    CRITICALITY ignore  TYPE HSDSCH-RearrangeList-Bearer-RearrangeInd   PRESENCE optional },
    ...
}

BearerRearrangementIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-RearrangeList-Bearer-RearrangeInd     CRITICALITY ignore  EXTENSION E-DCH-RearrangeList-Bearer-RearrangeInd     PRESENCE optional
},
    ...
}

DCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-RearrangeItem-Bearer-RearrangeInd

DCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    dCH-ID                                      DCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }   OPTIONAL,
    ...
}

DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-RearrangeItem-Bearer-RearrangeInd

DSCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    dSCH-ID                                     DSCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }     OPTIONAL,
    ...
}

DSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-RearrangeItem-Bearer-RearrangeInd

USCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    uSCH-ID                                     USCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { USCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }     OPTIONAL,
    ...
}

USCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HSDSCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-RearrangeItem-Bearer-RearrangeInd

HSDSCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                          HSDSCH-MACdFlow-ID,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }   OPTIONAL,
    ...
}

HSDSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1.. maxNrOfEDCHMACdFlows)) OF E-DCH-RearrangeItem-Bearer-RearrangeInd

E-DCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }    OPTIONAL,
    ...
}

E-DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ACTIVATION COMMAND FDD
--
-- **************************************************************

RadioLinkActivationCommandFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkActivationCommandFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkActivationCommandFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkActivationCommandFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                     CRITICALITY ignore  TYPE    NodeB-CommunicationContextID
    PRESENCE    mandatory   }|
    { ID    id-DelayedActivationList-RL-ActivationCmdFDD        CRITICALITY ignore  TYPE    DelayedActivationInformationList-RL-ActivationCmdFDD
        PRESENCE    mandatory   },
    ...
}

RadioLinkActivationCommandFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdFDD-IEs} }

DelayedActivationInformation-RL-ActivationCmdFDD-IEs NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-DelayedActivationInformation-RL-ActivationCmdFDD    CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdFDD  PRESENCE
optional    }
}

DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    delayed-activation-update   DelayedActivationUpdate,
    iE-Extensions               ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
    ...
}

DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ACTIVATION COMMAND TDD
--
-- **************************************************************

RadioLinkActivationCommandTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkActivationCommandTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkActivationCommandTDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkActivationCommandTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                     CRITICALITY ignore  TYPE    NodeB-CommunicationContextID
    PRESENCE    mandatory   }|
    { ID    id-DelayedActivationList-RL-ActivationCmdTDD        CRITICALITY ignore  TYPE    DelayedActivationInformationList-RL-ActivationCmdTDD
        PRESENCE    mandatory   },
    ...
}

RadioLinkActivationCommandTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdTDD-IEs} }

DelayedActivationInformation-RL-ActivationCmdTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdTDD    CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdTDD  PRESENCE
optional    }
}

DelayedActivationInformation-RL-ActivationCmdTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    delayed-activation-update   DelayedActivationUpdate,
    iE-Extensions               ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
--
-- **************************************************************

RadioLinkParameterUpdateIndicationFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkParameterUpdateIndicationFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkParameterUpdateIndicationFDD-Extensions}}          OPTIONAL,
    ...
}

RadioLinkParameterUpdateIndicationFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID         CRITICALITY     ignore      TYPE    CRNC-CommunicationContextID          PRESENCE mandatory   } |
    { ID id-HSDSCH-FDD-Update-Information       CRITICALITY     ignore      TYPE    HSDSCH-FDD-Update-Information        PRESENCE optional },
    ...
}

RadioLinkParameterUpdateIndicationFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Update-Information        CRITICALITY     ignore      EXTENSION   E-DCH-FDD-Update-Information        PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION TDD
--
-- **************************************************************

RadioLinkParameterUpdateIndicationTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkParameterUpdateIndicationTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkParameterUpdateIndicationTDD-Extensions}}          OPTIONAL,
    ...
}

RadioLinkParameterUpdateIndicationTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID         CRITICALITY     ignore      TYPE    CRNC-CommunicationContextID          PRESENCE mandatory   } |
    { ID id-HSDSCH-TDD-Update-Information       CRITICALITY     ignore      TYPE    HSDSCH-TDD-Update-Information        PRESENCE optional },
    ...
}

RadioLinkParameterUpdateIndicationTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- MBMS NOTIFICATION UPDATE COMMAND
--
```

```
-- **************************************************************

MBMSNotificationUpdateCommand ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{ MBMSNotificationUpdateCommand-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ MBMSNotificationUpdateCommand-Extensions}}                OPTIONAL,
    ...
}

MBMSNotificationUpdateCommand-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                CRITICALITY ignore  TYPE C-ID                                       PRESENCE mandatory   }|
    { ID id-CommonPhysicalChannelID             CRITICALITY ignore  TYPE CommonPhysicalChannelID                    PRESENCE mandatory   }|
    { ID id-Modification-Period                 CRITICALITY ignore  TYPE Modification-Period                        PRESENCE optional    }|
    { ID id-MICH-CFN                            CRITICALITY ignore  TYPE MICH-CFN                                   PRESENCE mandatory   }|
    { ID id-NI-Information-NotifUpdateCmd       CRITICALITY ignore  TYPE NI-Information                             PRESENCE mandatory   },
    ...
}

MBMSNotificationUpdateCommand-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

END
```

## 9.3.4 Information Elements Definitions

```
--**************************************************************************
--
-- Information Element Definitions
--
--**************************************************************************

NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

IMPORTS
    maxNrOfRLs,
    maxNrOfTFCs,
    maxNrOfErrors,
    maxCTFC,
    maxNrOfTFs,
    maxTTI-count,
    maxRateMatching,
    maxHS-PDSCHCodeNrComp-1,
    maxHS-SCCHCodeNrComp-1,
    maxNrOfCellSyncBursts,
    maxNrOfCombEDPDCH,
    maxNrOfEDCH-HARQ-PO-QUANTSTEPs,
    maxNrOfEDCHHARQProcesses2msEDCH,
    maxNrOfBits-MACe-PDU-non-scheduled,
```

```
    maxNrOfEDPCCH-PO-QUANTSTEPs,
    maxNrOfRefETFCI-PO-QUANTSTEPs,
    maxNrOfRefETFCIs,
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    maxNrOfReceptsPerSyncFrame,
    maxNrOfSF,
    maxTGPS,
    maxNrOfUSCHs,
    maxNrOfULTSs,
    maxNrOfULTSLCRs,
    maxNrOfDPCHs,
    maxNrOfDPCHLCRs,
    maxNrOfCodes,
    maxNrOfDSCHs,
    maxNrOfDLTSs,
    maxNrOfDLTSLCRs,
    maxNrOfDCHs,
    maxNrOfLevels,
    maxNoGPSItems,
    maxNoSat,
    maxNrOfCellPortionsPerCell,
    maxNrOfCellPortionsPerCell-1,
    maxNrOfHSSCCHs,
    maxNrOfHSSCCHCodes,
    maxNrOfMACdFlows,
    maxNrOfMACdFlows-1,
    maxNrOfMACdPDUIndexes,
    maxNrOfMACdPDUIndexes-1,
    maxNrOfMACdPDUSize,
    maxNrOfNIs,
    maxNrOfPriorityQueues,
    maxNrOfPriorityQueues-1,
    maxNrOfHARQProcesses,
    maxNrOfSyncDLCodesLCR,
    maxNrOfSyncFramesLCR,
    maxNrOfContextsOnUeList,
    maxNrOfPriorityClasses,
    maxNrOfSatAlmanac-maxNoSat,
    maxNrOfE-AGCHs,
    maxNrOfEDCHMACdFlows,
    maxNrOfEDCHMACdFlows-1,
    maxNrOfE-RGCHs-E-HICHs,
    maxNrofSigSeqRGHI-1,
    maxNoOfLogicalChannels,



    id-MessageStructure,
    id-ReportCharacteristicsType-OnModification,
    id-Rx-Timing-Deviation-Value-LCR,
    id-SFNSFNMeasurementValueInformation,
    id-SFNSFNMeasurementThresholdInformation,
    id-TUTRANGPSMeasurementValueInformation,
```

```
    id-TUTRANGPSMeasurementThresholdInformation,
    id-TypeOfError,
    id-transportlayeraddress,
    id-bindingID,
    id-Angle-Of-Arrival-Value-LCR,
    id-SyncDLCodeIdThreInfoLCR,
    id-neighbouringTDDCellMeasurementInformationLCR,
    id-HS-SICH-Reception-Quality,
    id-HS-SICH-Reception-Quality-Measurement-Value,
    id-Initial-DL-Power-TimeslotLCR-InformationItem,
    id-Maximum-DL-Power-TimeslotLCR-InformationItem,
    id-Minimum-DL-Power-TimeslotLCR-InformationItem,
    id-Received-total-wide-band-power-For-CellPortion,
    id-Received-total-wide-band-power-For-CellPortion-Value,
    id-Transmitted-Carrier-Power-For-CellPortion,
    id-Transmitted-Carrier-Power-For-CellPortion-Value,
    id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission,
    id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion,
    id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue,
    id-HS-DSCHRequiredPowerValueInformation,
    id-HS-DSCHProvidedBitRateValueInformation,
    id-HS-DSCHRequiredPowerValue,
    id-HS-DSCHRequiredPowerValue-For-Cell-Portion,
    id-HS-DSCHRequiredPowerValueInformation-For-CellPortion,
    id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion,
    id-Best-Cell-Portions-Value,
    id-Unidirectional-DCH-Indicator,
    id-SAT-Info-Almanac-ExtItem,
    id-TnlQos,
    id-UpPTSInterferenceValue,
    id-HARQ-Preamble-Mode,
    id-HARQ-Preamble-Mode-Activation-Indicator,
    id-DLTransmissionBranchLoadValue,
    id-E-DCHProvidedBitRateValueInformation,
    id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue,
    id-HSSICH-SIRTarget,
    id-HSSICH-TPC-StepSize,
    id-ueCapability-Info

FROM NBAP-Constants

    Criticality,
    ProcedureID,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM NBAP-CommonDataTypes

    NBAP-PROTOCOL-IES,
    ProtocolExtensionContainer{},
    ProtocolIE-Single-Container{},
    NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers;

-- ==========================================
```

```
--  A
-- ========================================

AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

Acknowledged-PRACH-preambles-Value ::= INTEGER(0..240,...)
-- According to mapping in [22].

AddorDeleteIndicator ::= ENUMERATED {
    add,
    delete
}

Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN                                CFN,
    transmission-Gap-Pattern-Sequence-Status    Transmission-Gap-Pattern-Sequence-Status-List   OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    ...
}

Active-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEQUENCE {
        tGPSID          TGPSID,
        tGPRC           TGPRC,
        tGCFN           CFN,
        iE-Extensions       ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
        ...
}


Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AICH-Power ::= INTEGER (-22..5)
-- Offset in dB.

AICH-TransmissionTiming ::= ENUMERATED {
    v0,
    v1
}
```

```
AllocationRetentionPriority ::= SEQUENCE {
    priorityLevel               PriorityLevel,
    pre-emptionCapability       Pre-emptionCapability,
    pre-emptionVulnerability    Pre-emptionVulnerability,
    iE-Extensions               ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
    ...
}

AllocationRetentionPriority-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
    aOA-LCR                     AOA-LCR,
    aOA-LCR-Accuracy-Class      AOA-LCR-Accuracy-Class,
    iE-Extensions               ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
...
}

Angle-Of-Arrival-Value-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD

AOA-LCR-Accuracy-Class  ::= ENUMERATED {a,b,c,d,e,f,g,h,...}

AvailabilityStatus ::= ENUMERATED {
    empty,
    in-test,
    failed,
    power-off,
    off-line,
    off-duty,
    dependency,
    degraded,
    not-installed,
    log-full,
    ...
}

-- ==========================================
--  B
-- ==========================================

BCCH-ModificationTime ::= INTEGER  (0..511)
-- Time = BCCH-ModificationTime * 8
-- Range 0 to 4088, step 8
-- All SFN values in which MIB may be mapped are allowed

Best-Cell-Portions-Value::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Best-Cell-Portions-Item
```

```
Best-Cell-Portions-Item ::= SEQUENCE {
    cellPortionID               CellPortionID,
    sIRValue                    SIR-Value,
    iE-Extensions               ProtocolExtensionContainer { { Best-Cell-Portions-Item-ExtIEs} }                    OPTIONAL,
    ...
}

Best-Cell-Portions-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BindingID ::= OCTET STRING (SIZE (1..4, ...))
-- If the Binding ID includes a UDP port, the UDP port is included in octet 1 and 2.The first octet of
-- the UDP port field is included in the first octet of the Binding ID.

BetaCD ::= INTEGER (0..15)

BlockingPriorityIndicator ::= ENUMERATED {
    high,
    normal,
    low,
    ...
}
-- High priority: Block resource immediately.
-- Normal priority: Block resource when idle or upon timer expiry.
-- Low priority: Block resource when idle.

SCTD-Indicator ::= ENUMERATED {
    active,
    inactive
}

BundlingModeIndicator ::= ENUMERATED {
    bundling,
    no-bundling
}

-- ========================================
--  C
-- ========================================

Cause ::= CHOICE {
    radioNetwork            CauseRadioNetwork,
    transport           CauseTransport,
    protocol                CauseProtocol,
    misc                    CauseMisc,
    ...
}

CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    oam-intervention,
    not-enough-user-plane-processing-resources,
```

```
    unspecified,
    ...
}

CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    rl-already-ActivatedOrAllocated,
    nodeB-Resources-unavailable,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    requested-configuration-not-supported,
    synchronisation-failure,
    priority-transport-channel-established,
    sIB-Origination-in-Node-B-not-Supported,
    requested-tx-diversity-mode-not-supported,
    unspecified,
    bCCH-scheduling-error,
    measurement-temporarily-not-available,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
    number-of-DL-codes-not-supported,
    s-cpich-not-supported,
    combining-not-supported,
    ul-sf-not-supported,
    dl-SF-not-supported,
    common-transport-channel-type-not-supported,
    dedicated-transport-channel-type-not-supported,
    downlink-shared-channel-type-not-supported,
    uplink-shared-channel-type-not-supported,
    cm-not-supported,
    tx-diversity-no-longer-supported,
    unknown-Local-Cell-ID,
    ...,
    number-of-UL-codes-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    cell-synchronisation-not-supported,
    cell-synchronisation-adjustment-not-supported,
    dpc-mode-change-not-supported,
```

```
    iPDL-already-activated,
    iPDL-not-supported,
    iPDL-parameters-not-available,
    frequency-acquisition-not-supported,
    power-balancing-status-not-compatible,
    requested-typeofbearer-re-arrangement-not-supported,
    signalling-Bearer-Re-arrangement-not-supported,
    bearer-Re-arrangement-needed,
    delayed-activation-not-supported,
    rl-timing-adjustment-not-supported,
    mich-not-supported,
    f-DPCH-not-supported
}

CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    ...
}

CCTrCH-ID ::= INTEGER (0..15)

CellParameterID ::= INTEGER (0..127,...)

CellPortionID   ::= INTEGER (0..maxNrOfCellPortionsPerCell-1,...)

CellSyncBurstCode ::= INTEGER(0..7, ...)

CellSyncBurstCodeShift ::= INTEGER(0..7)

CellSyncBurstRepetitionPeriod ::= INTEGER (0..4095)

CellSyncBurstSIR ::= INTEGER (0..31)

CellSyncBurstTiming ::= CHOICE {
    initialPhase            INTEGER (0..1048575,...),
    steadyStatePhase        INTEGER (0..255,...)
}

CellSyncBurstTimingLCR ::= CHOICE {
    initialPhase            INTEGER (0..524287,...),
    steadyStatePhase        INTEGER (0..127,...)
}

CellSyncBurstTimingThreshold ::= INTEGER(0..254)

CFN ::= INTEGER (0..255)

ChipOffset ::= INTEGER (0..38399)
-- Unit Chip

C-ID ::= INTEGER (0..65535)

Closedlooptimingadjustmentmode  ::= ENUMERATED {
```

```
    adj-1-slot,
    adj-2-slot,
    ...
}

CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost     INTEGER (0..65535),
        ul-Cost     INTEGER (0..65535),
        iE-Extensions       ProtocolExtensionContainer { { CommonChannelsCapacityConsumptionLaw-ExtIEs } }            OPTIONAL,
        ...
}

CommonChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass       TUTRANGPSAccuracyClass,
    ...
}

CommonMeasurementType ::= ENUMERATED  {
    received-total-wide-band-power,
    transmitted-carrier-power,
    acknowledged-prach-preambles,
    ul-timeslot-iscp,
    notUsed-1-acknowledged-PCPCH-access-preambles,
    notUsed-2-detected-PCPCH-access-preambles,
    ...,
    uTRAN-GPS-Timing-of-Cell-Frames-for-UE-Positioning,
    sFN-SFN-Observed-Time-Difference,
    transmittedCarrierPowerOfAllCodesNotUsedForHSTransmission,
    hS-DSCH-Required-Power,
    hS-DSCH-Provided-Bit-Rate,
    received-total-wide-band-power-for-cellPortion,
    transmitted-carrier-power-for-cellPortion,
    transmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmission-for-cellPortion,
    upPTS-Interference,
    dLTransmissionBranchLoad,
    hS-DSCH-Required-Power-for-cell-portion,
    hS-DSCH-Provided-Bit-Rate-for-cell-portion,
    e-DCH-Provided-Bit-Rate,
    e-DCH-Non-serving-Relative-Grant-Down-Commands
}

CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power                       Transmitted-Carrier-Power-Value,
    received-total-wide-band-power                  Received-total-wide-band-power-Value,
    acknowledged-prach-preambles                    Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                                 UL-TimeslotISCP-Value,
    notUsed-1-acknowledged-PCPCH-access-preambles   NULL,
    notUsed-2-detected-PCPCH-access-preambles       NULL,
    ...,
```

```
    extension-CommonMeasurementValue        Extension-CommonMeasurementValue
}

Extension-CommonMeasurementValue    ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}

Extension-CommonMeasurementValueIE NBAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementValueInformation            CRITICALITY ignore  TYPE TUTRANGPSMeasurementValueInformation   PRESENCE mandatory }|
    { ID id-SFNSFNMeasurementValueInformation               CRITICALITY ignore  TYPE SFNSFNMeasurementValueInformation      PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission   CRITICALITY ignore  TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue      PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPowerValueInformation            CRITICALITY ignore  TYPE HS-DSCHRequiredPower                   PRESENCE mandatory }|
    { ID id-HS-DSCHProvidedBitRateValueInformation          CRITICALITY ignore  TYPE HS-DSCHProvidedBitRate                 PRESENCE mandatory }|
    { ID id-Transmitted-Carrier-Power-For-CellPortion-Value CRITICALITY ignore  TYPE Transmitted-Carrier-Power-For-CellPortion-Value PRESENCE
mandatory }|
    { ID id-Received-total-wide-band-power-For-CellPortion-Value    CRITICALITY ignore  TYPE Received-total-wide-band-power-For-CellPortion-Value
    PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue CRITICALITY ignore   TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue   PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue                          CRITICALITY ignore  TYPE UpPTSInterferenceValue                         PRESENCE
mandatory }|
    { ID id-DLTransmissionBranchLoadValue                   CRITICALITY ignore  TYPE DLTransmissionBranchLoadValue
    PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPowerValueInformation-For-CellPortion    CRITICALITY ignore  TYPE HS-DSCHRequiredPowerValueInformation-For-CellPortion
    PRESENCE mandatory }|
    { ID id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion  CRITICALITY ignore  TYPE HS-DSCHProvidedBitRateValueInformation-For-CellPortion
    PRESENCE mandatory }|
    { ID id-E-DCHProvidedBitRateValueInformation            CRITICALITY ignore  TYPE E-DCHProvidedBitRate
    PRESENCE mandatory }|
    { ID id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue     CRITICALITY ignore  TYPE E-DCH-Non-serving-Relative-Grant-Down-Commands
    PRESENCE mandatory }
}

CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable        CommonMeasurementAvailable,
    measurementnotAvailable     CommonMeasurementnotAvailable
}


CommonMeasurementAvailable::= SEQUENCE {
    commonmeasurementValue      CommonMeasurementValue,
    ie-Extensions                   ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }           OPTIONAL,
    ...
}


CommonMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
CommonMeasurementnotAvailable ::= NULL

CommonPhysicalChannelID ::= INTEGER (0..255)
```

```
Common-PhysicalChannel-Status-Information ::= SEQUENCE {
    commonPhysicalChannelID         CommonPhysicalChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { Common-PhysicalChannel-Status-Information-ExtIEs} }    OPTIONAL,
    ...
}

Common-PhysicalChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelID ::= INTEGER (0..255)

CommonTransportChannel-InformationResponse ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    bindingID                           BindingID               OPTIONAL,
    transportLayerAddress               TransportLayerAddress   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { CommonTransportChannel-InformationResponse-ExtIEs} }   OPTIONAL,
    ...
}

CommonTransportChannel-InformationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-TransportChannel-Status-Information ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { Common-TransportChannel-Status-Information-ExtIEs} }   OPTIONAL,
    ...
}

Common-TransportChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationControlPortID ::= INTEGER (0..65535)

Compressed-Mode-Deactivation-Flag:= ENUMERATED {
    deactivate,
    maintain-Active
}

ConfigurationGenerationID ::= INTEGER (0..255)
-- Value '0' means "No configuration"

ConstantValue ::= INTEGER (-10..10,...)
-- -10 dB - +10 dB
-- unit dB
-- step 1 dB
```

```
CQI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,...}

CQI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

CQI-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

CriticalityDiagnostics ::= SEQUENCE {
    procedureID                 ProcedureID             OPTIONAL,
    triggeringMessage           TriggeringMessage           OPTIONAL,
    procedureCriticality        Criticality             OPTIONAL,
    transactionID               TransactionID               OPTIONAL,
    iEsCriticalityDiagnostics   CriticalityDiagnostics-IE-List  OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} }                    OPTIONAL,
    ...
}

CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality       Criticality,
        iE-ID               ProtocolIE-ID,
        repetitionNumber    RepetitionNumber0       OPTIONAL,
        iE-Extensions       ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} }                   OPTIONAL,
        ...
    }

CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {   ID id-MessageStructure      CRITICALITY ignore      EXTENSION MessageStructure      PRESENCE optional       }|
    {   ID id-TypeOfError           CRITICALITY ignore      EXTENSION TypeOfError           PRESENCE mandatory      },
    ...
}

CRNC-CommunicationContextID ::= INTEGER (0..1048575)

CSBMeasurementID ::= INTEGER (0..65535)

CSBTransmissionID ::= INTEGER (0..65535)

-- ==========================================
--  D
-- ==========================================



DATA-ID ::= INTEGER (0..3)

DCH-ID ::= INTEGER (0..255)

DCH-FDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem
```

```
DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-Specific-FDD-InformationList,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-FDD-InformationItem-ExtIEs} }           OPTIONAL,
    ...
}

DCH-FDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                      CRITICALITY ignore      EXTENSION TnlQos        PRESENCE optional          },
    ...
}

DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item

DCH-Specific-FDD-Item ::=   SEQUENCE {
    dCH-ID                              DCH-ID,
    ul-TransportFormatSet               TransportFormatSet,
    dl-TransportFormatSet               TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    qE-Selector                         QE-Selector,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-Specific-FDD-Item-ExtIEs} }             OPTIONAL,
    ...
}

DCH-Specific-FDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator             PRESENCE optional },
    ...
}

DCH-Indicator-For-E-DCH-HSDPA-Operation ::= ENUMERATED {
    dch-not-present
}

DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem

DCH-InformationResponseItem ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    bindingID                               BindingID               OPTIONAL,
    transportLayerAddress                   TransportLayerAddress   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-InformationResponseItem-ExtIEs} }    OPTIONAL,
    ...
}

DCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem
```

```
DCH-TDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-Specific-TDD-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-TDD-InformationItem-ExtIEs} }          OPTIONAL,
    ...
}

DCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos                       CRITICALITY ignore      EXTENSION TnlQos        PRESENCE optional},
    ...
}

DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item

DCH-Specific-TDD-Item ::=   SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-CCTrCH-ID                            CCTrCH-ID,
    dl-CCTrCH-ID                            CCTrCH-ID,
    ul-TransportFormatSet                   TransportFormatSet,
    dl-TransportFormatSet                   TransportFormatSet,
    allocationRetentionPriority             AllocationRetentionPriority,
    frameHandlingPriority                   FrameHandlingPriority,
    qE-Selector                             QE-Selector                     OPTIONAL,
    -- This IE shall be present if DCH is part of set of Coordinated DCHs
    iE-Extensions                           ProtocolExtensionContainer { { DCH-Specific-TDD-Item-ExtIEs} }            OPTIONAL,
    ...
}

DCH-Specific-TDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator             PRESENCE optional },
    ...
}

FDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem

FDD-DCHs-to-ModifyItem   ::= SEQUENCE {
    ul-FP-Mode                          UL-FP-Mode      OPTIONAL,
    toAWS                               ToAWS           OPTIONAL,
    toAWE                               ToAWE           OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    dCH-SpecificInformationList         DCH-ModifySpecificInformation-FDD,
    iE-Extensions                       ProtocolExtensionContainer { { FDD-DCHs-to-ModifyItem-ExtIEs} }               OPTIONAL,
    ...
}

FDD-DCHs-to-ModifyItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos                       CRITICALITY ignore      EXTENSION TnlQos        PRESENCE optional},
    ...
}

DCH-ModifySpecificInformation-FDD::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-FDD
```

```
DCH-ModifySpecificItem-FDD::=   SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-TransportFormatSet                   TransportFormatSet          OPTIONAL,
    dl-TransportFormatSet                   TransportFormatSet          OPTIONAL,
    allocationRetentionPriority             AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                   FrameHandlingPriority       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-ModifySpecificItem-FDD-ExtIEs} }     OPTIONAL,
    ...
}

DCH-ModifySpecificItem-FDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-Unidirectional-DCH-Indicator                CRITICALITY reject      EXTENSION Unidirectional-DCH-Indicator   PRESENCE optional},
    ...
}


TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-TDD

DCH-ModifyItem-TDD ::= SEQUENCE {
    ul-FP-Mode                          UL-FP-Mode      OPTIONAL,
    toAWS                               ToAWS           OPTIONAL,
    toAWE                               ToAWE           OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    dCH-SpecificInformationList         DCH-ModifySpecificInformation-TDD,
    iE-Extensions                       ProtocolExtensionContainer { { TDD-DCHs-to-ModifyItem-ExtIEs} }                 OPTIONAL,
    ...
}

TDD-DCHs-to-ModifyItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos                       CRITICALITY ignore      EXTENSION TnlQos        PRESENCE optional},
    ...
}

DCH-ModifySpecificInformation-TDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-TDD

DCH-ModifySpecificItem-TDD ::=  SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-CCTrCH-ID                            CCTrCH-ID                   OPTIONAL,
    dl-CCTrCH-ID                            CCTrCH-ID                   OPTIONAL,
    ul-TransportFormatSet                   TransportFormatSet          OPTIONAL,
    dl-TransportFormatSet                   TransportFormatSet          OPTIONAL,
    allocationRetentionPriority             AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                   FrameHandlingPriority       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-ModifySpecificItem-TDD-ExtIEs} }        OPTIONAL,
    ...
}

DCH-ModifySpecificItem-TDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF
    SEQUENCE {
```

```
        dl-Cost-1       INTEGER (0..65535),
        dl-Cost-2       INTEGER (0..65535),
        ul-Cost-1       INTEGER (0..65535),
        ul-Cost-2       INTEGER (0..65535),
        iE-Extensions       ProtocolExtensionContainer { { DedicatedChannelsCapacityConsumptionLaw-ExtIEs } }         OPTIONAL,
    ...
}

DedicatedChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementType ::= ENUMERATED {
    sir,
    sir-error,
    transmitted-code-power,
    rscp,
    rx-timing-deviation,
    round-trip-time,
    ...,
    rx-timing-deviation-LCR,
    angle-Of-Arrival-LCR,
    hs-sich-quality,
    best-Cell-Portions

}

DedicatedMeasurementValue ::= CHOICE {
    sIR-Value                       SIR-Value,
    sIR-ErrorValue                  SIR-Error-Value,
    transmittedCodePowerValue           Transmitted-Code-Power-Value,
    rSCP                                RSCP-Value,
    rxTimingDeviationValue              Rx-Timing-Deviation-Value,
    roundTripTime                       Round-Trip-Time-Value,
    ...,
    extension-DedicatedMeasurementValue     Extension-DedicatedMeasurementValue
}

Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}

Extension-DedicatedMeasurementValueIE NBAP-PROTOCOL-IES ::= {
    { ID id-Rx-Timing-Deviation-Value-LCR   CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-LCR   PRESENCE mandatory }|
    { ID id-Angle-Of-Arrival-Value-LCR  CRITICALITY reject  TYPE Angle-Of-Arrival-Value-LCR PRESENCE mandatory }|
    { ID id-HS-SICH-Reception-Quality   CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Value  PRESENCE mandatory }|
    { ID id-Best-Cell-Portions-Value    CRITICALITY reject  TYPE Best-Cell-Portions-Value   PRESENCE mandatory },
    ...
}


DedicatedMeasurementValueInformation ::= CHOICE {
    measurementAvailable        DedicatedMeasurementAvailable,
    measurementnotAvailable     DedicatedMeasurementnotAvailable
```

```
}

DedicatedMeasurementAvailable::= SEQUENCE {
    dedicatedmeasurementValue       DedicatedMeasurementValue,
    cFN                             CFN                         OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} }        OPTIONAL,
    ...
}

DedicatedMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementnotAvailable ::= NULL

DelayedActivation ::= CHOICE {
    cfn                     CFN,
    separate-indication     NULL
}

DelayedActivationUpdate ::= CHOICE {
    activate        Activate-Info,
    deactivate      Deactivate-Info
}

Activate-Info ::= SEQUENCE {
    activation-type         Execution-Type,
    initial-dl-tx-power     DL-Power,
    firstRLS-Indicator      FirstRLS-Indicator                                      OPTIONAL, --FDD Only
    propagation-delay       PropagationDelay                                        OPTIONAL, --FDD Only
    iE-Extensions           ProtocolExtensionContainer { { Activate-Info-ExtIEs} }      OPTIONAL,
    ...
}

Activate-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Deactivate-Info ::= SEQUENCE {
    deactivation-type       Execution-Type,
    iE-Extensions           ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }        OPTIONAL,
    ...
}

Deactivate-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Execution-Type ::= CHOICE {
    synchronised    CFN,
    unsynchronised  NULL
}

DeltaSIR               ::= INTEGER (0..30)
-- Unit dB, Step 0.1 dB, Range 0..3 dB.

DGPSCorrections ::= SEQUENCE {
   gpstow               GPSTOW,
   status-health        GPS-Status-Health,
   satelliteinfo        SAT-Info-DGPSCorrections,
   ie-Extensions        ProtocolExtensionContainer { { DGPSCorrections-ExtIEs} }       OPTIONAL,
   ...
}

DGPSCorrections-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGPSThresholds ::= SEQUENCE {
   prcdeviation         PRCDeviation,
   ie-Extensions        ProtocolExtensionContainer { { DGPSThresholds-ExtIEs} }     OPTIONAL,
   ...
}

DGPSThresholds-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiscardTimer ::= ENUMERATED
{v20,v40,v60,v80,v100,v120,v140,v160,v180,v200,v250,v300,v400,v500,v750,v1000,v1250,v1500,v1750,v2000,v2500,v3000,v3500,v4000,v4500,v5000,v7500,
 ...
}

DiversityControlField ::= ENUMERATED {
    may,
    must,
    must-not,
    ...
}

DiversityMode ::= ENUMERATED {
    none,
    sTTD,
    closed-loop-mode1,
    not-used-closed-loop-mode2,
    ...
}

DL-DPCH-SlotFormat ::= INTEGER (0..16,...)
```

```
DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
}

DL-Timeslot-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationItem

DL-Timeslot-InformationItem  ::= SEQUENCE {
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType           MidambleShiftAndBurstType,
    tFCI-Presence                       TFCI-Presence,
    dL-Code-Information                 TDD-DL-Code-Information,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Timeslot-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-TimeslotLCR-InformationItem

DL-TimeslotLCR-InformationItem   ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    tFCI-Presence                       TFCI-Presence,
    dL-Code-LCR-Information             TDD-DL-Code-LCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

DL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Initial-DL-Power-TimeslotLCR-InformationItem    CRITICALITY ignore   EXTENSION DL-Power                  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationItem    CRITICALITY ignore   EXTENSION DL-Power                  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem  CRITICALITY ignore    EXTENSION DL-Power                  PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    ...
}

DL-or-Global-CapacityCredit ::= INTEGER (0..65535)

DL-Power ::= INTEGER (-350..150)
-- Value = DL-Power/10
-- Unit dB, Range -35dB .. +15dB, Step +0.1dB
```

```
DLPowerAveragingWindowSize ::= INTEGER (1..60)

DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType                 PowerAdjustmentType,
    dLReferencePower                    DL-Power        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList-DL-PC-Rqst     DL-ReferencePowerInformationList        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    maxAdjustmentStep                   MaxAdjustmentStep       OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod                    AdjustmentPeriod        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentRatio                     ScaledAdjustmentRatio   OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    iE-Extensions                       ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    ...
}

DL-PowerBalancing-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-ReferencePowerInformationList        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem

DL-ReferencePowerInformationItem ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-Reference-Power          DL-Power,
    iE-Extensions               ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    ...
}

DL-ReferencePowerInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-PowerBalancing-ActivationIndicator   ::= ENUMERATED {
    dL-PowerBalancing-Activated
}

DL-PowerBalancing-UpdatedIndicator  ::= ENUMERATED {
    dL-PowerBalancing-Updated
}

DL-ScramblingCode ::= INTEGER (0..15)
-- 0= Primary scrambling code of the cell, 1..15= Secondary scrambling code --

DL-TimeslotISCP ::= INTEGER (0..91)

DL-TimeslotISCPInfo ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-TimeslotISCPInfoItem

DL-TimeslotISCPInfoItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { {DL-TimeslotISCPInfoItem-ExtIEs} }                     OPTIONAL,
```

```
    ...
    }

DL-TimeslotISCPInfoItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotISCPInfoLCR ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-TimeslotISCPInfoItemLCR

DL-TimeslotISCPInfoItemLCR ::= SEQUENCE {
    timeSlotLCR                 TimeSlotLCR,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { {DL-TimeslotISCPInfoItemLCR-ExtIEs} }                      OPTIONAL,
    ...
    }

DL-TimeslotISCPInfoItemLCR-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TPC-Pattern01Count ::= INTEGER (0..30,...)

DLTransmissionBranchLoadValue ::= INTEGER (0..101,...)

Downlink-Compressed-Mode-Method     ::= ENUMERATED {
    not-Used-puncturing,
    sFdiv2,
    higher-layer-scheduling,
    ...
}

DPC-Mode ::= ENUMERATED {
    mode0,
    mode1,
    ...
}

DPCH-ID ::= INTEGER (0..239)

DSCH-ID ::= INTEGER (0..255)

DSCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem

DSCH-InformationResponseItem ::= SEQUENCE {
    dSCH-ID                                     DSCH-ID,
    bindingID                                   BindingID                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DSCH-InformationResponseItem-ExtIEs } }     OPTIONAL,
    ...
}

DSCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

DSCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-TDD-InformationItem

DSCH-TDD-InformationItem ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    cCTrCH-ID                           CCTrCH-ID,
    transportFormatSet                  TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-TDD-InformationItem-ExtIEs} }         OPTIONAL,
    ...
}

DSCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                   CRITICALITY ignore      EXTENSION   BindingID           PRESENCE           optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress       CRITICALITY ignore      EXTENSION   TransportLayerAddress                  PRESENCE    optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

DsField ::= BIT STRING (SIZE (8))

DwPCH-Power ::= INTEGER (-150..400,...)
-- DwPCH-power = power * 10
-- If power <= -15 DwPCH shall be set to -150
-- If power >= 40 DwPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB


-- ========================================
--  E
-- ========================================

E-AGCH-FDD-Code-Information ::= CHOICE {
    replace                 E-AGCH-FDD-Code-List,
    remove                  NULL,
    ...
}

E-AGCH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfE-AGCHs)) OF FDD-DL-ChannelisationCodeNumber


E-DCH-Capability ::= ENUMERATED {
    e-DCH-capable,
    e-DCH-non-capable
}

E-DCHCapacityConsumptionLaw ::= SEQUENCE {
        e-DCH-SF-allocation     E-DCH-SF-allocation,
        dl-Cost-1               INTEGER (0..65535)                                                              OPTIONAL,
```

```
        dl-Cost-2               INTEGER (0..65535)                                                  OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { { E-DCHCapacityConsumptionLaw-ExtIEs } }  OPTIONAL,
    ...
}

E-DCHCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-SF-allocation ::= SEQUENCE ( SIZE(1..maxNrOfCombEDPDCH) ) OF
    SEQUENCE {
        ul-Cost-1       INTEGER (0..65535),
        ul-Cost-2       INTEGER (0..65535),
        iE-Extensions       ProtocolExtensionContainer { { E-DCH-SF-allocation-ExtIEs } }       OPTIONAL,
    ...
}

E-DCH-SF-allocation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TTI2ms-Capability ::= BOOLEAN
-- True = TTI 10ms and 2ms supported for E-DCH False = only TTI 10ms supported for E-DCH

E-DCH-SF-Capability ::= ENUMERATED {
    sf64,
    sf32,
    sf16,
    sf8,
    sf4,
    sf4x2,
    sf2x2,
    sf4x2-and-sf2x2,
    ...
}

E-DCH-HARQ-Combining-Capability ::= ENUMERATED {
    iR-Combining-capable,
    chase-Combining-capable,
    iR-and-Chase-Combining-capable
}

E-DCH-DDI-Value ::= INTEGER (0..62)

E-DCH-FDD-DL-Control-Channel-Information ::= SEQUENCE {
    e-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code    DL-ScramblingCode                                   OPTIONAL,
    e-AGCH-Channelisation-Code                      FDD-DL-ChannelisationCodeNumber                     OPTIONAL,
    primary-e-RNTI                                  E-RNTI                                              OPTIONAL,
    secondary-e-RNTI                                E-RNTI                                              OPTIONAL,
    e-RGCH-E-HICH-Channelisation-Code               FDD-DL-ChannelisationCodeNumber                     OPTIONAL,
    e-RGCH-Signature-Sequence                       E-RGCH-Signature-Sequence                           OPTIONAL,
    e-HICH-Signature-Sequence                       E-HICH-Signature-Sequence                           OPTIONAL,
    serving-Grant-Value                             E-Serving-Grant-Value                               OPTIONAL,
```

```
    primary-Secondary-Grant-Selector            E-Primary-Secondary-Grant-Selector                                          OPTIONAL,
    e-RGCH-Release-Indicator                    E-RGCH-Release-Indicator
    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-FDD-DL-Control-Channel-Information-ExtIEs} }   OPTIONAL,
    ...
}

E-DCH-FDD-DL-Control-Channel-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-FDD-Information ::= SEQUENCE {
    e-DCH-MACdFlows-Information                 E-DCH-MACdFlows-Information,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH  HARQ-Process-Allocation-2ms-EDCH                                            OPTIONAL,
    e-DCH-Maximum-Bitrate                       E-DCH-Maximum-Bitrate                                                      OPTIONAL,
    e-DCH-Processing-Overload-Level             E-DCH-Processing-Overload-Level                                            OPTIONAL,
    e-DCH-Reference-Power-Offset                E-DCH-Reference-Power-Offset                                               OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-FDD-Information-ExtIEs} }             OPTIONAL,
    ...
}

E-DCH-FDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-FDD-Information-Response ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-InformationResp     E-DCH-MACdFlow-Specific-InformationResp                                    OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH  HARQ-Process-Allocation-2ms-EDCH                                            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-FDD-Information-Response-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-FDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-FDD-Information-to-Modify ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-Info-to-Modify      E-DCH-MACdFlow-Specific-InfoList-to-Modify                                 OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH  HARQ-Process-Allocation-2ms-EDCH                                            OPTIONAL,
    e-DCH-Maximum-Bitrate                       E-DCH-Maximum-Bitrate                                                      OPTIONAL,
    e-DCH-Processing-Overload-Level             E-DCH-Processing-Overload-Level                                            OPTIONAL,
    e-DCH-Reference-Power-Offset                E-DCH-Reference-Power-Offset                                               OPTIONAL,
    mACeReset-Indicator                         MACeReset-Indicator                                                        OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-FDD-Information-to-Modify-ExtIEs} }    OPTIONAL,
    ...
}

E-DCH-FDD-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-FDD-Update-Information ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-UpdateInformation   E-DCH-MACdFlow-Specific-UpdateInformation                                  OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH  HARQ-Process-Allocation-2ms-EDCH                                            OPTIONAL,
```

```
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-FDD-Update-Information-ExtIEs } }              OPTIONAL,
    ...
}

E-DCH-FDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-MACdFlow-Specific-UpdateInformation ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-UpdateInformation-Item

E-DCH-MACdFlow-Specific-UpdateInformation-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    hARQ-Process-Allocation-NonSched-2ms-EDCH    HARQ-Process-Allocation-2ms-EDCH                                                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-Grant-Type-Information ::= CHOICE {
    e-DCH-Non-Scheduled-Transmission-Grant      E-DCH-Non-Scheduled-Transmission-Grant-Items,
    e-DCH-Scheduled-Transmission-Grant          NULL,
    ...
}

E-DCH-LogicalChannelInformation ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelInformationItem

E-DCH-LogicalChannelInformationItem ::= SEQUENCE {
    logicalChannelId                LogicalChannelID,
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    schedulingInformation           SchedulingInformation,
    mACesGuaranteedBitRate          MACesGuaranteedBitRate      OPTIONAL,
    e-DCH-DDI-Value                 E-DCH-DDI-Value,
    mACd-PDU-Size-List              E-DCH-MACdPDU-SizeList,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-LogicalChannelInformationItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Maximum-Bitrate ::= INTEGER (0..5742,...)

E-DCH-Processing-Overload-Level ::= INTEGER (0..10,...)

E-DCH-Reference-Power-Offset ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-MACdPDU-SizeList ::= SEQUENCE (SIZE (1.. maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem
```

```
E-DCH-MACdPDU-SizeListItem ::= SEQUENCE {
    mACdPDU-Size                    MACdPDU-Size,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-MACdPDU-SizeListItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-MACdPDU-SizeListItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-LogicalChannelToModify ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToModifyItem

E-DCH-LogicalChannelToModifyItem ::= SEQUENCE {
    logicalChannelId                LogicalChannelID,
    schedulingPriorityIndicator     SchedulingPriorityIndicator     OPTIONAL,
    schedulingInformation           SchedulingInformation       OPTIONAL,
    mACesGuaranteedBitRate          MACesGuaranteedBitRate      OPTIONAL,
    e-DCH-DDI-Value                 E-DCH-DDI-Value                 OPTIONAL,
    mACd-PDU-Size-List              E-DCH-MACdPDU-SizeToModifyList,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-LogicalChannelToModifyItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelToModifyItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdPDU-SizeToModifyList ::= SEQUENCE (SIZE (0.. maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem



E-DCH-LogicalChannelToDelete ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToDeleteItem

E-DCH-LogicalChannelToDeleteItem ::= SEQUENCE {
    logicalChannelId                LogicalChannelID,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-LogicalChannelToDeleteItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelToDeleteItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

LogicalChannelID ::= INTEGER (1..15)


E-DCH-HARQ-PO-FDD ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-MACdFlow-ID ::= INTEGER (0..maxNrOfEDCHMACdFlows-1)

E-DCH-MACdFlows-Information ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-Info                    E-DCH-MACdFlow-Specific-InfoList,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-MACdFlows-Information-ExtIEs} }                OPTIONAL,
```

```
    ...
}

E-DCH-MACdFlows-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdFlow-Multiplexing-List ::= BIT STRING ( SIZE(maxNrOfEDCHMACdFlows) )

E-DCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InfoItem

E-DCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    allocationRetentionPriority                 AllocationRetentionPriority,
    tnlQos                                      TnlQos                                                                  OPTIONAL,
    payloadCRC-PresenceIndicator                PayloadCRC-PresenceIndicator,
    maximum-Number-of-Retransmissions-For-E-DCH  Maximum-Number-of-Retransmissions-For-E-DCH,
    eDCH-HARQ-PO-FDD                            E-DCH-HARQ-PO-FDD,
    eDCH-MACdFlow-Multiplexing-List             E-DCH-MACdFlow-Multiplexing-List                                        OPTIONAL,
    eDCH-Grant-Type-Information                 E-DCH-Grant-Type-Information,
    bundlingModeIndicator                       BundlingModeIndicator                                   OPTIONAL,
    eDCHLogicalChannelInformation               E-DCH-LogicalChannelInformation,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InfoItem-ExtIEs} }   OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InformationResp-Item

E-DCH-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    bindingID                                   BindingID                                                               OPTIONAL,
    transportLayerAddress                       TransportLayerAddress                                                   OPTIONAL,
    hARQ-Process-Allocation-NonSched-2ms-EDCH    HARQ-Process-Allocation-2ms-EDCH                                       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InformationResp-Item-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InformationResp-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InfoItem-to-Modify

E-DCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    allocationRetentionPriority                 AllocationRetentionPriority                                             OPTIONAL,
    transportBearerRequestIndicator             TransportBearerRequestIndicator,
    tnlQos                                      TnlQos                                                                  OPTIONAL,
    maximum-Number-of-Retransmissions-For-E-DCH  Maximum-Number-of-Retransmissions-For-E-DCH                            OPTIONAL,
```

```
    eDCH-HARQ-PO-FDD                            E-DCH-HARQ-PO-FDD                                                                   OPTIONAL,
    eDCH-MACdFlow-Multiplexing-List             E-DCH-MACdFlow-Multiplexing-List                                                    OPTIONAL,
    eDCH-Grant-Type-Information                 E-DCH-Grant-Type-Information                                                        OPTIONAL,
    bundlingModeIndicator                       BundlingModeIndicator                                                               OPTIONAL,
    eDCH-LogicalChannelToAdd                    E-DCH-LogicalChannelInformation                                                     OPTIONAL,
    eDCH-LogicalChannelToModify                 E-DCH-LogicalChannelToModify                                                        OPTIONAL,
    eDCH-LogicalChannelToDelete                 E-DCH-LogicalChannelToDelete                                                        OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-to-Delete-Item

E-DCH-MACdFlow-to-Delete-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-to-Delete-Item-ExtIEs} }              OPTIONAL,
    ...
}

E-DCH-MACdFlow-to-Delete-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Non-Scheduled-Transmission-Grant-Items ::= SEQUENCE {
    maxBits-MACe-PDU-non-scheduled              Max-Bits-MACe-PDU-non-scheduled,
    hARQ-Process-Allocation-NonSched-2ms                HARQ-Process-Allocation-2ms-EDCH
    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs} }   OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Non-serving-Relative-Grant-Down-Commands ::= INTEGER (0..100,...)

E-DCHProvidedBitRateValue ::= INTEGER(0..16777215,...)
-- Unit bit/s, Range 0..2^24-1, Step 1 bit

Maximum-Target-ReceivedTotalWideBandPower ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [22]

Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio ::= INTEGER (0..100)
-- Unit %, Range 0..100%, Step 1%

E-DCH-RL-Indication ::= ENUMERATED {
    e-DCH,
    non-e-DCH
```

```
}


E-DCH-Serving-Cell-Change-Info-Response ::= SEQUENCE {
    e-DCH-serving-cell-choice       E-DCH-serving-cell-choice,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-serving-cell-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-informationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-serving-cell-choice ::= CHOICE {
    e-DCH-serving-cell-change-successful        E-DCH-serving-cell-change-successful,
    e-DCH-serving-cell-change-unsuccessful      E-DCH-serving-cell-change-unsuccessful,
    ...
}

E-DCH-serving-cell-change-successful ::= SEQUENCE {
    e-DCH-RL-InformationList-Rsp            E-DCH-RL-InformationList-Rsp,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCH-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-RL-InformationList-Rsp ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF E-DCH-RL-InformationList-Rsp-Item

E-DCH-RL-InformationList-Rsp-Item ::= SEQUENCE {
    rl-ID                               RL-ID,
    e-DCH-FDD-DL-Control-Channel-Info   E-DCH-FDD-DL-Control-Channel-Information,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-RL-InformationList-Rsp-Item-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-successful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-RL-InformationList-Rsp-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-unsuccessful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-TFCI-Table-Index ::= INTEGER (0..1,...)
```

```
E-DPCCH-PO ::= INTEGER (0..maxNrOfEDPCCH-PO-QUANTSTEPs)

E-Primary-Secondary-Grant-Selector ::= ENUMERATED {
    primary,
    secondary
}

E-HICH-Signature-Sequence ::= INTEGER (0..maxNrofSigSeqRGHI-1)

End-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    end-of-audit-sequence,
    not-end-of-audit-sequence
}

E-Serving-Grant-Value ::= INTEGER (0..38)

E-RGCH-2-IndexStepThreshold ::= INTEGER (0..37)

E-RGCH-3-IndexStepThreshold ::= INTEGER (0..37)

E-RGCH-E-HICH-FDD-Code-Information ::= CHOICE {
    replace                 E-RGCH-E-HICH-FDD-Code-List,
    remove                  NULL,
    ...
}

E-RGCH-E-HICH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfE-RGCHs-E-HICHs)) OF FDD-DL-ChannelisationCodeNumber

E-RGCH-Release-Indicator ::= ENUMERATED {e-RGCHreleased}

E-RGCH-Signature-Sequence ::= INTEGER (0..maxNrofSigSeqRGHI-1)

E-RNTI ::= INTEGER (0..65535)

E-TFCI ::= INTEGER (0..127)

E-TFCS-Information ::= SEQUENCE {
    e-DCH-TFCI-Table-Index                          E-DCH-TFCI-Table-Index,
    e-DCH-Min-Set-E-TFCI                        E-TFCI          OPTIONAL,
    reference-E-TFCI-Information                Reference-E-TFCI-Information,
    iE-Extensions                               ProtocolExtensionContainer { {E-TFCS-Information-ExtIEs} }        OPTIONAL,
    ...
}

E-TFCS-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-TTI ::= ENUMERATED {
    e-TTI-2ms,
    e-TTI-10ms
}
```

```
E-DCHProvidedBitRate ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF E-DCHProvidedBitRate-Item

E-DCHProvidedBitRate-Item ::= SEQUENCE {
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    e-DCHProvidedBitRateValue           E-DCHProvidedBitRateValue,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCHProvidedBitRate-Item-ExtIEs} }            OPTIONAL,
    ...
}

E-DCHProvidedBitRate-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

E-RGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB



E-HICH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB



-- ========================================
--  F
-- ========================================

FDD-DL-ChannelisationCodeNumber ::= INTEGER(0.. 511)
-- According to the mapping in [9]. The maximum value is equal to the DL spreading factor -1--

FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfCodes)) OF FDD-DL-CodeInformationItem

FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode                       DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    transmissionGapPatternSequenceCodeInformation       TransmissionGapPatternSequenceCodeInformation               OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { FDD-DL-CodeInformationItem-ExtIEs} }    OPTIONAL,
    ...
}

FDD-DL-CodeInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FDD-S-CCPCH-FrameOffset ::= ENUMERATED {
    v1, v2, v4, ...
}
```

```
FDD-S-CCPCH-Offset ::= INTEGER (0..149)
-- 0: 0 chip, 1: 256 chip, 2: 512 chip, .. ,149: 38144 chip [7] --

FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    step-size1-5,
    step-size2,
    ...
}

F-DPCH-Capability ::= ENUMERATED {
    f-DPCH-capable,
    f-DPCH-non-capable
}

FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
    not-first-RLS,
    ...
}

FNReportingIndicator ::= ENUMERATED {
 fN-reporting-required,
 fN-reporting-not-required
}

FrameHandlingPriority ::= INTEGER (0..15)
-- 0=lowest priority, 15=highest priority --

FrameAdjustmentValue ::= INTEGER(0..4095)

FrameOffset ::= INTEGER (0..255)

FPACH-Power ::= INTEGER (-150..400,...) -- FPACH-power = power * 10
-- If power <= -15 FPACH shall be set to -150
-- If power >= 40 FPACH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB

-- ========================================
--  G
-- ========================================

GapLength               ::= INTEGER (1..14)
-- Unit slot

GapDuration             ::= INTEGER (1..144,...)
-- Unit frame

GenericTrafficCategory  ::= BIT STRING (SIZE (8))

GPS-Almanac ::= SEQUENCE {
```

```
    wn_a-alm              BIT STRING (SIZE (8)),
    sat-info-almanac      SAT-Info-Almanac,
    sVGlobalHealth-alm    BIT STRING (SIZE (364)) OPTIONAL,
    ie-Extensions         ProtocolExtensionContainer { { GPS-Almanac-ExtIEs} }       OPTIONAL,
    ...
}

GPS-Almanac-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SAT-Info-Almanac-ExtItem    CRITICALITY ignore      EXTENSION   SAT-Info-Almanac-ExtList      PRESENCE optional},
    ...
}

GPS-Ionospheric-Model ::= SEQUENCE {
   alpha-zero-ionos      BIT STRING (SIZE (8)),
   alpha-one-ionos       BIT STRING (SIZE (8)),
   alpha-two-ionos       BIT STRING (SIZE (8)),
   alpha-three-ionos     BIT STRING (SIZE (8)),
   beta-zero-ionos       BIT STRING (SIZE (8)),
   beta-one-ionos        BIT STRING (SIZE (8)),
   beta-two-ionos        BIT STRING (SIZE (8)),
   beta-three-ionos      BIT STRING (SIZE (8)),
   ie-Extensions         ProtocolExtensionContainer { { GPS-Ionospheric-Model-ExtIEs} }     OPTIONAL,
   ...
}

GPS-Ionospheric-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Information ::= SEQUENCE (SIZE (0..maxNoGPSItems)) OF GPS-Information-Item
-- This IE shall be present if the Information Type Item IE indicates "GPS Information"

GPS-Information-Item ::= ENUMERATED {
   gps-navigation-model-and-time-recovery,
   gps-ionospheric-model,
   gps-utc-model,
   gps-almanac,
   gps-rt-integrity,
   ...
}

GPS-RealTime-Integrity ::= CHOICE {
    bad-satellites              GPSBadSat-Info-RealTime-Integrity,
    no-bad-satellites           NULL
}

GPSBadSat-Info-RealTime-Integrity ::= SEQUENCE {
    sat-info                        SATInfo-RealTime-Integrity,
```

```
    ie-Extensions                   ProtocolExtensionContainer { { GPSBadSat-Info-RealTime-Integrity-ExtIEs} }        OPTIONAL,
    ...
}


GPSBadSat-Info-RealTime-Integrity-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF GPS-NavandRecovery-Item

GPS-NavandRecovery-Item ::= SEQUENCE {
  tx-tow-nav                        INTEGER (0..1048575),
  sat-id-nav                        SAT-ID,
  tlm-message-nav                   BIT STRING (SIZE (14)),
  tlm-revd-c-nav                    BIT STRING (SIZE (2)),
  ho-word-nav                       BIT STRING (SIZE (22)),
  w-n-nav                           BIT STRING (SIZE (10)),
  ca-or-p-on-l2-nav                 BIT STRING (SIZE (2)),
  user-range-accuracy-index-nav     BIT STRING (SIZE (4)),
  sv-health-nav                     BIT STRING (SIZE (6)),
  iodc-nav                          BIT STRING (SIZE (10)),
  l2-p-dataflag-nav                 BIT STRING (SIZE (1)),
  sf1-reserved-nav                  BIT STRING (SIZE (87)),
  t-gd-nav                          BIT STRING (SIZE (8)),
  t-oc-nav                          BIT STRING (SIZE (16)),
  a-f-2-nav                         BIT STRING (SIZE (8)),
  a-f-1-nav                         BIT STRING (SIZE (16)),
  a-f-zero-nav                      BIT STRING (SIZE (22)),
  c-rs-nav                          BIT STRING (SIZE (16)),
  delta-n-nav                       BIT STRING (SIZE (16)),
  m-zero-nav                        BIT STRING (SIZE (32)),
  c-uc-nav                          BIT STRING (SIZE (16)),
  gps-e-nav                         BIT STRING (SIZE (32)),
  c-us-nav                          BIT STRING (SIZE (16)),
  a-sqrt-nav                        BIT STRING (SIZE (32)),
  t-oe-nav                          BIT STRING (SIZE (16)),
  fit-interval-flag-nav             BIT STRING (SIZE (1)),
  aodo-nav                          BIT STRING (SIZE (5)),
  c-ic-nav                          BIT STRING (SIZE (16)),
  omega-zero-nav                    BIT STRING (SIZE (32)),
  c-is-nav                          BIT STRING (SIZE (16)),
  i-zero-nav                        BIT STRING (SIZE (32)),
  c-rc-nav                          BIT STRING (SIZE (16)),
  gps-omega-nav                     BIT STRING (SIZE (32)),
  omegadot-nav                      BIT STRING (SIZE (24)),
  idot-nav                          BIT STRING (SIZE (14)),
  spare-zero-fill                   BIT STRING (SIZE (20)),
  ie-Extensions                     ProtocolExtensionContainer { { GPS-NavandRecovery-Item-ExtIEs} }                  OPTIONAL,
   ...
}
```

```
GPS-NavandRecovery-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


GPS-RX-POS ::= SEQUENCE {
    latitudeSign            ENUMERATED {north, south},
    latitude                INTEGER (0..8388607),
    longitude               INTEGER (-8388608..8388607),
    directionOfAltitude     ENUMERATED {height, depth},
    altitude                INTEGER (0..32767),
    iE-Extensions           ProtocolExtensionContainer { { GPS-RX-POS-ExtIEs} } OPTIONAL,
    ...
}

GPS-RX-POS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Status-Health ::= ENUMERATED {
   udre-scale-1dot0,
   udre-scale-0dot75,
   udre-scale-0dot5,
   udre-scale-0dot3,
   udre-scale-0dot1,
   no-data,
   invalid-data
}

GPSTOW ::= INTEGER (0..604799)

GPS-UTC-Model ::= SEQUENCE {
   a-one-utc             BIT STRING (SIZE (24)),
   a-zero-utc            BIT STRING (SIZE (32)),
   t-ot-utc              BIT STRING (SIZE (8)),
   delta-t-ls-utc        BIT STRING (SIZE (8)),
   w-n-t-utc             BIT STRING (SIZE (8)),
   w-n-lsf-utc           BIT STRING (SIZE (8)),
   dn-utc                BIT STRING (SIZE (8)),
   delta-t-lsf-utc       BIT STRING (SIZE (8)),
   ie-Extensions         ProtocolExtensionContainer { { GPS-UTC-Model-ExtIEs} }     OPTIONAL,
   ...
}

GPS-UTC-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ========================================
--  H
```

```
-- ========================================

HARQ-Info-for-E-DCH ::= ENUMERATED {
    rv0,
    rvtable
}

HARQ-MemoryPartitioning ::= CHOICE {
    implicit        HARQ-MemoryPartitioning-Implicit,
    explicit        HARQ-MemoryPartitioning-Explicit,
    ...
    }

HARQ-MemoryPartitioning-Implicit    ::= SEQUENCE {
    number-of-Processes         INTEGER (1..8,...),
    iE-Extensions               ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Implicit-ExtIEs } }      OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Implicit-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-MemoryPartitioning-Explicit    ::= SEQUENCE {
    hARQ-MemoryPartitioningList         HARQ-MemoryPartitioningList,
    iE-Extensions                       ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Explicit-ExtIEs } }       OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Explicit-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-MemoryPartitioningList ::= SEQUENCE (SIZE (1..maxNrOfHARQProcesses)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningItem ::= SEQUENCE {
    process-Memory-Size                 ENUMERATED {
                                        hms800, hms1600, hms2400, hms3200, hms4000,
                                        hms4800, hms5600, hms6400, hms7200, hms8000,
                                        hms8800, hms9600, hms10400, hms11200, hms12000,
                                        hms12800, hms13600, hms14400, hms15200, hms16000,
                                        hms17600, hms19200, hms20800, hms22400, hms24000,
                                        hms25600, hms27200, hms28800, hms30400, hms32000,
                                        hms36000, hms40000, hms44000, hms48000, hms52000,
                                        hms56000, hms60000, hms64000, hms68000, hms72000,
                                        hms76000, hms80000, hms88000, hms96000, hms104000,
                                        hms112000, hms120000, hms128000, hms136000, hms144000,
                                        hms152000, hms160000, hms176000, hms192000, hms208000,
                                        hms224000, hms240000, hms256000, hms272000, hms288000,
                                        hms304000,...},
    iE-Extensions                       ProtocolExtensionContainer { { HARQ-MemoryPartitioningItem-ExtIEs } }      OPTIONAL,
    ...
}
```

```
HARQ-MemoryPartitioningItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-Preamble-Mode ::= ENUMERATED {
   mode0,
   mode1
}


HARQ-Process-Allocation-2ms-EDCH ::= BIT STRING ( SIZE(maxNrOfEDCHHARQProcesses2msEDCH) )

HARQ-Preamble-Mode-Activation-Indicator ::=ENUMERATED   {
    harqPreambleModeActivated
}

HSDPA-Capability ::= ENUMERATED {hsdpa-capable, hsdpa-non-capable}

HS-DSCHProvidedBitRate ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF HS-DSCHProvidedBitRate-Item

HS-DSCHProvidedBitRate-Item ::= SEQUENCE {
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    hS-DSCHProvidedBitRateValue         HS-DSCHProvidedBitRateValue,
    iE-Extensions                       ProtocolExtensionContainer { { HS-DSCHProvidedBitRate-Item-ExtIEs} }          OPTIONAL,
    ...
}

HS-DSCHProvidedBitRate-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHProvidedBitRateValue ::= INTEGER(0..16777215,...)
-- Unit bit/s, Range 0..2^24-1, Step 1 bit

HS-DSCHProvidedBitRateValueInformation-For-CellPortion ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HS-
DSCHProvidedBitRateValueInformation-For-CellPortion-Item

HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item ::= SEQUENCE{
    cellPortionID                   CellPortionID,
    hS-DSCHProvidedBitRateValue     HS-DSCHProvidedBitRate,
    iE-Extensions                   ProtocolExtensionContainer { {HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPower ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF HS-DSCHRequiredPower-Item

HS-DSCHRequiredPower-Item ::= SEQUENCE {
    schedulingPriorityIndicator             SchedulingPriorityIndicator,
    hS-DSCHRequiredPowerValue               HS-DSCHRequiredPowerValue,
    hS-DSCHRequiredPowerPerUEInformation    HS-DSCHRequiredPowerPerUEInformation                                    OPTIONAL,
```

```
    iE-Extensions                           ProtocolExtensionContainer { { HS-DSCHRequiredPower-Item-ExtIEs} }        OPTIONAL,
    ...
}

HS-DSCHRequiredPower-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPowerValue ::= INTEGER(0..1000)
-- Unit %, Range 0 ..1000, Step 0.1%

HS-DSCHRequiredPowerPerUEInformation ::= SEQUENCE (SIZE (1.. maxNrOfContextsOnUeList)) OF HS-DSCHRequiredPowerPerUEInformation-Item


HS-DSCHRequiredPowerPerUEInformation-Item ::= SEQUENCE {
    cRNC-CommunicationContextID             CRNC-CommunicationContextID,
    hS-DSCHRequiredPowerPerUEWeight         HS-DSCHRequiredPowerPerUEWeight     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-DSCHRequiredPowerPerUEInformation-Item-ExtIEs} }    OPTIONAL,
    ...
}

HS-DSCHRequiredPowerPerUEInformation-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPowerPerUEWeight ::= INTEGER(0..100)
-- Unit %, Range 0 ..100, Step 1%

HS-DSCHRequiredPowerValueInformation-For-CellPortion ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HS-DSCHRequiredPowerValueInformation-
For-CellPortion-Item

HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item ::= SEQUENCE{
    cellPortionID               CellPortionID,
    hS-DSCHRequiredPowerValue   HS-DSCHRequiredPower,
    iE-Extensions               ProtocolExtensionContainer { { HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item-ExtIEs} }   OPTIONAL,
    ...
}

HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-FDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information                HSDSCH-MACdFlows-Information,
    ueCapability-Info                           UE-Capability-Information,
    mAChs-Reordering-Buffer-Size-for-RLC-UM     MAChsReorderingBufferSize-for-RLC-UM,
    cqiFeedback-CycleK                          CQI-Feedback-Cycle,
    cqiRepetitionFactor                         CQI-RepetitionFactor                        OPTIONAL,
    -- This IE shall be present if the CQI Feedback Cycle k is greater than 0
    ackNackRepetitionFactor                     AckNack-RepetitionFactor,
    cqiPowerOffset                              CQI-Power-Offset,
    ackPowerOffset                              Ack-Power-Offset,
    nackPowerOffset                             Nack-Power-Offset,
    hsscch-PowerOffset                          HSSCCH-PowerOffset                          OPTIONAL,
```

```
    measurement-Power-Offset                    Measurement-Power-Offset                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs} }       OPTIONAL,
    ...
}

HSDSCH-FDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HARQ-Preamble-Mode  CRITICALITY ignore      EXTENSION   HARQ-Preamble-Mode  PRESENCE optional},
    ...
}

HSDSCH-TDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information                HSDSCH-MACdFlows-Information,
    ueCapability-Info                           UE-Capability-Information,
    mAChs-Reordering-Buffer-Size-for-RLC-UM     MAChsReorderingBufferSize-for-RLC-UM,
    tDD-AckNack-Power-Offset                    TDD-AckNack-Power-Offset,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs} }       OPTIONAL,
    ...
}

HSDSCH-TDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSSICH-SIRTarget        CRITICALITY ignore      EXTENSION   UL-SIR  PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
    { ID id-HSSICH-TPC-StepSize     CRITICALITY ignore      EXTENSION   TDD-TPC-UplinkStepSize-LCR PRESENCE optional }, -- Applicable to 1.28Mcps
TDD only
    ...
}


HSDSCH-Information-to-Modify ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-Info-to-Modify         HSDSCH-MACdFlow-Specific-InfoList-to-Modify                 OPTIONAL,
    priorityQueueInfotoModify                       PriorityQueue-InfoList-to-Modify                            OPTIONAL,
    mAChs-Reordering-Buffer-Size-for-RLC-UM         MAChsReorderingBufferSize-for-RLC-UM                        OPTIONAL,
    cqiFeedback-CycleK                              CQI-Feedback-Cycle                                          OPTIONAL,   -- For FDD only
    cqiRepetitionFactor                             CQI-RepetitionFactor                                        OPTIONAL,   -- For FDD only
    ackNackRepetitionFactor                         AckNack-RepetitionFactor                                    OPTIONAL,   -- For FDD only
    cqiPowerOffset                                  CQI-Power-Offset                                            OPTIONAL,   -- For FDD only
    ackPowerOffset                                  Ack-Power-Offset                                            OPTIONAL,   -- For FDD only
    nackPowerOffset                                 Nack-Power-Offset                                           OPTIONAL,   -- For FDD only
    hsscch-PowerOffset                              HSSCCH-PowerOffset                                          OPTIONAL,   -- For FDD only
    measurement-Power-Offset                        Measurement-Power-Offset                                    OPTIONAL,   -- For FDD only
    hSSCCHCodeChangeGrant                           HSSCCH-Code-Change-Grant                                    OPTIONAL,
    tDDAckNackPowerOffset                           TDD-AckNack-Power-Offset                                    OPTIONAL,   -- For TDD only
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIEs} }   OPTIONAL,
    ...
}

HSDSCH-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HARQ-Preamble-Mode  CRITICALITY ignore      EXTENSION   HARQ-Preamble-Mode  PRESENCE optional}|
    { ID id-HSSICH-SIRTarget    CRITICALITY ignore      EXTENSION   UL-SIR              PRESENCE optional}| -- Applicable to 1.28Mcps TDD only
    { ID id-ueCapability-Info   CRITICALITY ignore      EXTENSION   UE-Capability-Information                   PRESENCE optional }|
    { ID id-HSSICH-TPC-StepSize     CRITICALITY ignore      EXTENSION   TDD-TPC-UplinkStepSize-LCR               PRESENCE optional }, --
Applicable to 1.28Mcps TDD only
    ...
}
```

```
HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority                 OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    bindingID                           BindingID                                   OPTIONAL,
    transportLayerAddress               TransportLayerAddress                       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs} }   OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-Information-to-Modify-Unsynchronised ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-Info-to-Modify         HSDSCH-MACdFlow-Specific-InfoList-to-Modify                  OPTIONAL,
    priorityQueueInfotoModifyUnsynchronised         PriorityQueue-InfoList-to-Modify-Unsynchronised              OPTIONAL,
    cqiPowerOffset                                  CQI-Power-Offset                                             OPTIONAL,   -- For FDD only
    ackPowerOffset                                  Ack-Power-Offset                                             OPTIONAL,   -- For FDD only
    nackPowerOffset                                 Nack-Power-Offset                                            OPTIONAL,   -- For FDD only
    hsscch-PowerOffset                              HSSCCH-PowerOffset                                           OPTIONAL,   -- For FDD only
    tDDAckNackPowerOffset                           TDD-AckNack-Power-Offset                                     OPTIONAL,   -- For TDD only
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs} }
    OPTIONAL,
    ...
}

HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HARQ-Preamble-Mode  CRITICALITY ignore      EXTENSION   HARQ-Preamble-Mode  PRESENCE optional}|
    { ID id-HSSICH-SIRTarget    CRITICALITY ignore      EXTENSION   UL-SIR             PRESENCE optional}| -- Applicable to 1.28Mcps TDD only
    { ID id-ueCapability-Info       CRITICALITY ignore      EXTENSION   UE-Capability-Information                PRESENCE optional}|
    { ID id-HSSICH-TPC-StepSize     CRITICALITY ignore      EXTENSION   TDD-TPC-UplinkStepSize-LCR               PRESENCE optional},
     -- Applicable to 1.28Mcps TDD only
    ...
}

HSDSCH-FDD-Information-Response ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-InformationResp        HSDSCH-MACdFlow-Specific-InformationResp                                OPTIONAL,
    hsSCCH-Specific-Information-ResponseFDD         HSSCCH-Specific-InformationRespListFDD                                  OPTIONAL,
    hARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                                                 OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-FDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{   ID id-HARQ-Preamble-Mode-Activation-Indicator       CRITICALITY ignore  EXTENSION   HARQ-Preamble-Mode-Activation-Indicator PRESENCE optional},
    ...
}

HSDSCH-TDD-Information-Response ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-InformationResp        HSDSCH-MACdFlow-Specific-InformationResp    OPTIONAL,
    hsSCCH-Specific-Information-ResponseTDD         HSSCCH-Specific-InformationRespListTDD      OPTIONAL, -- Not Applicable to 1.28Mcps TDD
```

```
    hsSCCH-Specific-Information-ResponseTDDLCR      HSSCCH-Specific-InformationRespListTDDLCR   OPTIONAL, -- Not Applicable to 3.84Mcps TDD
    hARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                     OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }     OPTIONAL,
    ...
}

HSDSCH-TDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InformationResp-Item

HSDSCH-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    hsDSCHMacdFlow-Id                               HSDSCH-MACdFlow-ID,
    bindingID                                       BindingID                   OPTIONAL,
    transportLayerAddress                           TransportLayerAddress       OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation              HSDSCH-Initial-Capacity-Allocation OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InformationRespItem-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InformationRespItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlows-Information ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-Info                   HSDSCH-MACdFlow-Specific-InfoList,
    priorityQueue-Info                              PriorityQueue-InfoList,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-MACdFlows-Information-ExtIEs } }        OPTIONAL,
    ...
}

HSDSCH-MACdFlows-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem

HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority,
    bindingID                           BindingID                   OPTIONAL,
    transportLayerAddress               TransportLayerAddress       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs} }    OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlows-to-Delete-Item
```

```
HSDSCH-MACdFlows-to-Delete-Item ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlows-to-Delete-Item-ExtIEs} }      OPTIONAL,
    ...
}

HSDSCH-MACdFlows-to-Delete-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

HSDSCH-Initial-Capacity-Allocation::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF HSDSCH-Initial-Capacity-AllocationItem

HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    maximum-MACdPDU-Size            MACdPDU-Size,
    hSDSCH-InitialWindowSize        HSDSCH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { { HSDSCH-Initial-Capacity-AllocationItem-ExtIEs } } OPTIONAL,
    ...
}

HSDSCH-Initial-Capacity-AllocationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-InitialWindowSize            ::= INTEGER (1..255)
-- Number of MAC-d PDUs.

HSSCCH-Specific-InformationRespListFDD ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Codes

HSSCCH-Codes ::= SEQUENCE {
    codeNumber                                  INTEGER (0..127),
    iE-Extensions                               ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemFDD-ExtIEs } }    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-Specific-InformationRespListTDD ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Specific-InformationRespItemTDD

HSSCCH-Specific-InformationRespItemTDD ::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    hSSICH-Info                                 HSSICH-Info,
    iE-Extensions                               ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemTDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

```
HSSCCH-Specific-InformationRespItemTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-Specific-InformationRespListTDDLCR ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Specific-InformationRespItemTDDLCR

HSSCCH-Specific-InformationRespItemTDDLCR ::= SEQUENCE {
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    first-TDD-ChannelisationCode                    TDD-ChannelisationCode,
    second-TDD-ChannelisationCode           TDD-ChannelisationCode,
    hSSICH-InfoLCR                              HSSICH-InfoLCR,
    iE-Extensions                               ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemTDDLCR-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemTDDLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSICH-Info ::= SEQUENCE {
    hsSICH-ID                                       HS-SICH-ID,
    timeslot                                        TimeSlot,
    midambleShiftAndBurstType                       MidambleShiftAndBurstType,
    tDD-ChannelisationCode                          TDD-ChannelisationCode,
    iE-Extensions                                   ProtocolExtensionContainer { { HSSICH-Info-ExtIEs } }       OPTIONAL,
    ...
}

HSSICH-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSICH-InfoLCR ::= SEQUENCE {
    hsSICH-ID                                       HS-SICH-ID,
    timeslotLCR                                     TimeSlotLCR,
    midambleShiftLCR                                MidambleShiftLCR,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                                   ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }      OPTIONAL,
    ...
}

HSSICH-Info-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Reception-Quality-Value ::= SEQUENCE {
    failed-HS-SICH              HS-SICH-failed,
    missed-HS-SICH              HS-SICH-missed,
    total-HS-SICH               HS-SICH-total,
    iE-Extensions               ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs} } OPTIONAL,
...
```

```
}

HS-SICH-Reception-Quality-Value-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-failed ::= INTEGER (0..20)

HS-SICH-missed ::= INTEGER (0..20)

HS-SICH-total ::= INTEGER (0..20)

HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
-- According to mapping in [23]

HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)

HSDSCH-RNTI ::= INTEGER (0..65535)

HS-PDSCH-FDD-Code-Information ::= SEQUENCE {
    number-of-HS-PDSCH-codes                        INTEGER (0..maxHS-PDSCHCodeNrComp-1),
    hS-PDSCH-Start-code-number                  HS-PDSCH-Start-code-number      OPTIONAL,
-- Only included when number of HS-DSCH codes > 0
    iE-Extensions               ProtocolExtensionContainer { { HS-PDSCH-FDD-Code-Information-ExtIEs} } OPTIONAL,
    ...
}

HS-PDSCH-FDD-Code-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-PDSCH-Start-code-number ::=  INTEGER (1..maxHS-PDSCHCodeNrComp-1)

HS-SCCH-ID ::= INTEGER (0..31)
HS-SICH-ID ::= INTEGER (0..31)

HS-SCCH-FDD-Code-Information::= CHOICE {
    replace                 HS-SCCH-FDD-Code-List,
    remove                  NULL,
    ...
}

HS-SCCH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-FDD-Code-Information-Item

HS-SCCH-FDD-Code-Information-Item ::= INTEGER (0..maxHS-SCCHCodeNrComp-1)

HSSCCH-CodeChangeIndicator  ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
}

HSSCCH-Code-Change-Grant    ::= ENUMERATED {
    changeGranted
}
```

```
HSDSCH-Configured-Indicator::= ENUMERATED {
    configured-HS-DSCH,
    no-configured-HS-DSCH
}

HS-DSCH-Serving-Cell-Change-Info ::= SEQUENCE {
    hspdsch-RL-ID                   RL-ID,
    hSDSCH-FDD-Information          HSDSCH-FDD-Information  OPTIONAL,
    hsdsch-RNTI                     HSDSCH-RNTI,
    iE-Extensions                   ProtocolExtensionContainer { { HS-DSCH-Serving-Cell-Change-Info-ExtIEs} }      OPTIONAL,
    ...
}

HS-DSCH-Serving-Cell-Change-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-Serving-Cell-Change-Info-Response::= SEQUENCE {
    hS-DSCH-serving-cell-choice     HS-DSCH-serving-cell-choice,
    iE-Extensions                   ProtocolExtensionContainer { { HS-DSCH-serving-cell-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCH-serving-cell-informationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-serving-cell-choice ::= CHOICE {
    hS-serving-cell-change-successful       HS-serving-cell-change-successful,
    hS-serving-cell-change-unsuccessful     HS-serving-cell-change-unsuccessful,
    ...
}

HS-serving-cell-change-successful ::= SEQUENCE {
    hSDSCH-FDD-Information-Response     HSDSCH-FDD-Information-Response,
    iE-Extensions                       ProtocolExtensionContainer { { HS-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

HS-serving-cell-change-successful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { HS-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

HS-serving-cell-change-unsuccessful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HSDSCH-FDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                   HSSCCH-CodeChangeIndicator                  OPTIONAL,
    cqiFeedback-CycleK                          CQI-Feedback-Cycle                          OPTIONAL,
    cqiRepetitionFactor                         CQI-RepetitionFactor                        OPTIONAL,
    ackNackRepetitionFactor                     AckNack-RepetitionFactor                    OPTIONAL,
    cqiPowerOffset                              CQI-Power-Offset                            OPTIONAL,
    ackPowerOffset                              Ack-Power-Offset                            OPTIONAL,
    nackPowerOffset                             Nack-Power-Offset                           OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-FDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-TDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                   HSSCCH-CodeChangeIndicator                  OPTIONAL,
    tDDAckNackPowerOffset                       TDD-AckNack-Power-Offset                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-TDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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IB-OC-ID ::= INTEGER (1..16)

IB-SG-DATA ::= BIT STRING
-- Contains SIB data fixed" or "SIB data variable" in segment as encoded in ref.[18].

IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed

IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}

IB-Type ::= ENUMERATED {
    mIB,
    sB1,
    sB2,
    sIB1,
    sIB2,
    sIB3,
    sIB4,
    sIB5,
    sIB6,
    sIB7,
    sIB8,
```

```
    sIB9,
    sIB10,
    sIB11,
    sIB12,
    sIB13,
    sIB13dot1,
    sIB13dot2,
    sIB13dot3,
    sIB13dot4,
    sIB14,
    sIB15,
    sIB15dot1,
    sIB15dot2,
    sIB15dot3,
    sIB16,
    ...,
    sIB17,
    sIB15dot4,
    sIB18,
    sIB15dot5,
    sIB5bis,
    sIB11bis
}

InformationReportCharacteristics ::= CHOICE {
    onDemand                NULL,
    periodic                InformationReportCharacteristicsType-ReportPeriodicity,
    onModification          InformationReportCharacteristicsType-OnModification,
    ...
}

InformationReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    min                 ReportPeriodicity-Scaledmin,
    hours               ReportPeriodicity-Scaledhour,
    ...
}

InformationReportCharacteristicsType-OnModification ::= SEQUENCE {
    information-thresholds        InformationThresholds     OPTIONAL,
    ie-Extensions                 ProtocolExtensionContainer { { InformationReportCharacteristicsType-OnModification-ExtIEs} } OPTIONAL,
   ...
}

InformationReportCharacteristicsType-OnModification-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationThresholds ::= CHOICE {
    dgps                DGPSThresholds,
    ...
}
```

```
InformationExchangeID ::= INTEGER (0..1048575)

InformationType ::= SEQUENCE {
    information-Type-Item       Information-Type-Item,
    gPSInformation              GPS-Information  OPTIONAL,
    -- The IE shall be present if the Information Type Item IE indicates "GPS Information".
    iE-Extensions               ProtocolExtensionContainer { { Information-Type-ExtIEs} }       OPTIONAL,
...
}

Information-Type-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Information-Type-Item ::= ENUMERATED {
    gpsinformation,
    dgpscorrections,
    gpsrxpos,
    ...
}

Initial-DL-DPCH-TimingAdjustment-Allowed ::= ENUMERATED {
    initial-DL-DPCH-TimingAdjustment-Allowed
}

InnerLoopDLPCStatus ::= ENUMERATED {
    active,
    inactive
}

IPDL-Indicator ::= ENUMERATED {
    active,
    inactive
}


IPDL-FDD-Parameters ::= SEQUENCE {
    iP-SpacingFDD                   ENUMERATED{sp5,sp7,sp10,sp15,sp20,sp30,sp40,sp50,...},
    iP-Length                       ENUMERATED{len5, len10},
    seed                            INTEGER(0..63),
    burstModeParams                 BurstModeParams     OPTIONAL,
    iP-Offset                       INTEGER(0..9),
    iE-Extensions                   ProtocolExtensionContainer { { IPDLFDDParameter-ExtIEs} }   OPTIONAL,
    ...
}

IPDLFDDParameter-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
IPDL-TDD-Parameters ::= SEQUENCE {
    iP-SpacingTDD                   ENUMERATED{sp30,sp40,sp50,sp70,sp100,...},
    iP-Start                        INTEGER(0..4095),
    iP-Slot                         INTEGER(0..14),
    iP-PCCPCH                       ENUMERATED{switchOff-1-Frame,switchOff-2-Frames},
    burstModeParams                 BurstModeParams     OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { IPDLTDDParameter-ExtIEs} }   OPTIONAL,
    ...
}

IPDL-TDD-Parameters-LCR ::= SEQUENCE {
    iP-SpacingTDD                   ENUMERATED{sp30,sp40,sp50,sp70,sp100,...},
    iP-Start                        INTEGER(0..4095),
    iP-Sub                          ENUMERATED{first,second,both},
    burstModeParams                 BurstModeParams     OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { IPDLTDDParameterLCR-ExtIEs} }    OPTIONAL,
    ...
}

BurstModeParams ::= SEQUENCE {
    burstStart                          INTEGER(0..15),
    burstLength                         INTEGER(10..25),
    burstFreq                           INTEGER(1..16),
    ...
}

IPDLTDDParameter-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLTDDParameterLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

Local-Cell-ID ::= INTEGER (0..268435455)

-- ==========================================
```

```
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MACdPDU-Size ::= INTEGER (1..5000,...)

MACdPDU-Size-Indexlist ::= SEQUENCE (SIZE (1..maxNrOfMACdPDUIndexes)) OF MACdPDU-Size-IndexItem

MACdPDU-Size-IndexItem ::= SEQUENCE {
    sID                             SID,
    macdPDU-Size                    MACdPDU-Size,
    iE-Extensions                   ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs} }              OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACdPDU-Size-Indexlist-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify

MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
    sID                             SID,
    macdPDU-Size                    MACdPDU-Size,
    iE-Extensions                   ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-to-Modify-ExtIEs} }     OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACesGuaranteedBitRate ::= INTEGER (0..16777215,...)

MACeReset-Indicator ::= ENUMERATED {mACeReset}

MAChsGuaranteedBitRate ::= INTEGER (0..16777215,...)

MAChsReorderingBufferSize-for-RLC-UM ::= INTEGER (0..300,...)
-- Unit kBytes

MAC-hsWindowSize        ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,...}

MaximumDL-PowerCapability ::=  INTEGER(0..500)
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB

Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(1..maxNrOfBits-MACe-PDU-non-scheduled)

Maximum-Number-of-Retransmissions-For-E-DCH ::= INTEGER (0..15)

MaximumTransmissionPower ::=  INTEGER(0..500)
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB


MaxNrOfUL-DPDCHs ::= INTEGER (1..6)
```

```
MaxPRACH-MidambleShifts ::= ENUMERATED {
    shift4,
    shift8,
    ...
}

Max-Set-E-DPDCHs ::= ENUMERATED {
    vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,
    ...
    }
-- Values related to [8]

MeasurementFilterCoefficient ::= ENUMERATED {k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...}
-- Measurement Filter Coefficient to be used for measurement

MeasurementID ::= INTEGER (0..1048575)

Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5

MeasurementRecoveryBehavior ::= NULL

MeasurementRecoveryReportingIndicator ::= NULL

MeasurementRecoverySupportIndicator ::= NULL

MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
        iE-ID                   ProtocolIE-ID,
        repetitionNumber        RepetitionNumber1       OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
        ...
    }

MessageStructure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-CFN ::= INTEGER (0..4095)

MICH-Mode ::= ENUMERATED {
    v18,
    v36,
    v72,
    v144,
    ...
}

MidambleConfigurationLCR ::=    ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}

MidambleConfigurationBurstType1And3 ::=     ENUMERATED {v4, v8, v16}

MidambleConfigurationBurstType2 ::=     ENUMERATED {v3, v6}
```

```
MidambleShiftAndBurstType ::=       CHOICE {
    type1                               SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
    ...
    },
    type2                               SEQUENCE {
        midambleConfigurationBurstType2     MidambleConfigurationBurstType2,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftShort,
            ...
        },
        ...
    },
    type3                               SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            ueSpecificMidamble                  MidambleShiftLong,
        ...
        },
        ...
    },
    ...
}

MidambleShiftLong ::=               INTEGER (0..15)

MidambleShiftShort ::=              INTEGER (0..5)

MidambleShiftLCR ::= SEQUENCE {
    midambleAllocationMode      MidambleAllocationMode,
    midambleShift               MidambleShiftLong       OPTIONAL,
    -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
    midambleConfigurationLCR        MidambleConfigurationLCR,
    iE-Extensions               ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }        OPTIONAL,
    ...
    }

MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
    uESpecificMidamble,
    ...
    }
```

```
MidambleShiftLCR-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MinimumDL-PowerCapability ::=  INTEGER(0..800)
-- Unit dBm, Range -30dBm .. 50dBm, Step +0.1dB

MinSpreadingFactor ::= ENUMERATED {
        v4,
        v8,
        v16,
        v32,
        v64,
        v128,
        v256,
        v512
}
--  TDD Mapping scheme for the minimum spreading factor 1 and 2: "256" means 1, "512" means 2

Modification-Period ::= ENUMERATED { v1280, v2560, v5120, v10240,...}

ModifyPriorityQueue ::= CHOICE {
    addPriorityQueue            PriorityQueue-InfoItem-to-Add,
    modifyPriorityQueue         PriorityQueue-InfoItem-to-Modify,
    deletePriorityQueue         PriorityQueue-Id,
    ...
}

Modulation ::= ENUMERATED {
    qPSK,
    eightPSK,
    ...
}

MinUL-ChannelisationCodeLength ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256,
    ...
}

MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible
}

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```

```
Nack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

NCyclesPerSFNperiod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    ...,
    v16,
    v32,
    v64
}

NRepetitionsPerCyclePeriod ::= INTEGER (2..10)

N-INSYNC-IND ::= INTEGER (1..256)

N-OUTSYNC-IND ::= INTEGER (1..256)

NeighbouringCellMeasurementInformation ::= SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
        CHOICE {
                neighbouringFDDCellMeasurementInformation       NeighbouringFDDCellMeasurementInformation, -- FDD only
                neighbouringTDDCellMeasurementInformation       NeighbouringTDDCellMeasurementInformation,
                -- Applicable to 3.84Mcps TDD only
                ...,
                extension-neighbouringCellMeasurementInformation    Extension-neighbouringCellMeasurementInformation
            }

Extension-neighbouringCellMeasurementInformation    ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}

Extension-neighbouringCellMeasurementInformationIE NBAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformationLCR    CRITICALITY reject  TYPE NeighbouringTDDCellMeasurementInformationLCR PRESENCE
mandatory },    -- Applicable to 1.28Mcps TDD only
    ...
}

NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    primaryScramblingCode               PrimaryScramblingCode,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringFDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
```

```
    timeSlot                            TimeSlot                        OPTIONAL,
    midambleShiftAndBurstType           MidambleShiftAndBurstType       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
    timeSlotLCR                         TimeSlotLCR             OPTIONAL,
    midambleShiftLCR                    MidambleShiftLCR        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NI-Information ::= SEQUENCE (SIZE (1..maxNrOfNIs)) OF Notification-Indicator

Notification-Indicator ::= INTEGER (0..65535)


NodeB-CommunicationContextID ::= INTEGER (0..1048575)

NotificationIndicatorLength ::= ENUMERATED {
    v2,
    v4,
    v8,
    ...
}


NumberOfReportedCellPortions ::= INTEGER (1..maxNrOfCellPortionsPerCell,...)

NSubCyclesPerCyclePeriod ::= INTEGER (1..16,...)

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PagingIndicatorLength ::= ENUMERATED {
    v2,
```

```
    v4,
    v8,
    ...
}

PayloadCRC-PresenceIndicator ::= ENUMERATED {
    cRC-Included,
    cRC-NotIncluded,
    ...
}

PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB

PDSCH-ID ::= INTEGER (0..255)

PDSCHSet-ID ::= INTEGER (0..255)

PICH-Mode ::= ENUMERATED {
    v18,
    v36,
    v72,
    v144,
    ...
}

PICH-Power ::= INTEGER (-10..5)
-- Unit dB, Range -10dB .. +5dB, Step +1dB

PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
}

PowerOffset ::= INTEGER (0..24)
-- PowerOffset = offset * 0.25
-- Unit dB, Range 0dB .. +6dB, Step +0.25dB

PowerRaiseLimit ::= INTEGER (0..10)

PRACH-Midamble ::= ENUMERATED {
    inverted,
    direct,
    ...
}

PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters

PRCDeviation ::= ENUMERATED {
```

```
   one,
   two,
   five,
   ten,
   ...
}

PreambleSignatures ::= BIT STRING {
                                    signature15(0),
                                    signature14(1),
                                    signature13(2),
                                    signature12(3),
                                    signature11(4),
                                    signature10(5),
                                    signature9(6),
                                    signature8(7),
                                    signature7(8),
                                    signature6(9),
                                    signature5(10),
                                    signature4(11),
                                    signature3(12),
                                    signature2(13),
                                    signature1(14),
                                    signature0(15)
                                    } (SIZE (16))

PreambleThreshold ::= INTEGER (0..72)
-- 0= -36.0dB, 1= -35.5dB, ... , 72= 0.0dB

PredictedSFNSFNDeviationLimit ::=INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
}

Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
}

PrimaryCPICH-Power ::= INTEGER(-100..500)
-- step 0.1 (Range –10.0..50.0) Unit is dBm

Primary-CPICH-Usage-for-Channel-Estimation ::= ENUMERATED {
   primary-CPICH-may-be-used,
   primary-CPICH-shall-not-be-used
}

PrimaryScramblingCode ::= INTEGER (0..511)
```

```
PriorityLevel               ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority

PriorityQueue-Id ::= INTEGER (0..maxNrOfPriorityQueues-1)

PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF PriorityQueue-InfoItem

PriorityQueue-InfoItem ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    associatedHSDSCH-MACdFlow           HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
    discardTimer                        DiscardTimer                OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                                          OPTIONAL,
    macdPDU-Size-Index                  MACdPDU-Size-Indexlist,
    rLC-Mode                            RLC-Mode,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs} }             OPTIONAL,
    ...
}

PriorityQueue-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF ModifyPriorityQueue

PriorityQueue-InfoItem-to-Add ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    associatedHSDSCH-MACdFlow           HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
    discardTimer                        DiscardTimer                                    OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                          OPTIONAL,
    macdPDU-Size-Index                  MACdPDU-Size-Indexlist,
    rLC-Mode                            RLC-Mode,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Add-ExtIEs} }      OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Add-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator                     OPTIONAL,
    t1                                  T1                                              OPTIONAL,
    discardTimer                        DiscardTimer                                    OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize                                OPTIONAL,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                          OPTIONAL,
    macdPDU-Size-Index-to-Modify        MACdPDU-Size-Indexlist-to-Modify                OPTIONAL,
```

```
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs} }     OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityQueue-InfoList-to-Modify-Unsynchronised ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF PriorityQueue-InfoItem-to-Modify-Unsynchronised

PriorityQueue-InfoItem-to-Modify-Unsynchronised ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator                                                   OPTIONAL,
    discardTimer                        DiscardTimer                                                                  OPTIONAL,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                                                        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs} }     OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-RSCP ::= INTEGER (0..91)
-- Mapping of non-negative values according to [23]

PrimaryCCPCH-RSCP-Delta ::= INTEGER (-5..-1,...)
-- Mapping of negative values according to [23]

PropagationDelay ::= INTEGER (0..255)
-- Unit: chips, step size 3 chips
-- example: 0 = 0chip, 1 = 3chips

SCH-TimeSlot ::= INTEGER (0..6)

PunctureLimit ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100%
-- 0 is not applicable for E-DPCH

PUSCH-ID ::= INTEGER (0..255)

PUSCHSet-ID ::= INTEGER (0..255)

-- ==========================================
--  Q
-- ==========================================

QE-Selector ::= ENUMERATED {
    selected,
    non-selected
}

-- ==========================================
--  R
```

```
-- ========================================

RACH-SlotFormat ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    ...
}

RACH-SubChannelNumbers ::= BIT STRING {
                                    subCh11(0),
                                    subCh10(1),
                                    subCh9(2),
                                    subCh8(3),
                                    subCh7(4),
                                    subCh6(5),
                                    subCh5(6),
                                    subCh4(7),
                                    subCh3(8),
                                    subCh2(9),
                                    subCh1(10),
                                    subCh0(11)
                                    } (SIZE (12))

RL-Specific-DCH-Info ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item

RL-Specific-DCH-Info-Item ::= SEQUENCE {
    dCH-id                  DCH-ID,
    bindingID               BindingID                                                   OPTIONAL,
    transportlayeraddress   TransportLayerAddress                                       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-DCH-Info-Item-ExtIEs} }  OPTIONAL,
    ...
}

RL-Specific-DCH-Info-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Specific-E-DCH-Info ::= SEQUENCE {
    rL-Specific-E-DCH-Information       RL-Specific-E-DCH-Information,
    e-AGCH-PowerOffset                  E-AGCH-PowerOffset                          OPTIONAL,
    e-RGCH-PowerOffset                  E-RGCH-PowerOffset                          OPTIONAL,
    e-HICH-PowerOffset                  E-HICH-PowerOffset                          OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-E-DCH-Info-Item-ExtIEs} }  OPTIONAL,
    ...
}

RL-Specific-E-DCH-Info-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


RL-Specific-E-DCH-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF RL-Specific-E-DCH-Information-Item
```

```
RL-Specific-E-DCH-Information-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID       E-DCH-MACdFlow-ID,
    bindingID               BindingID                                   OPTIONAL,
    transportlayeraddress   TransportLayerAddress                       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-E-DCH-Information-Item-ExtIEs} } OPTIONAL,
    ...
}

RL-Specific-E-DCH-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s

Reference-ReceivedTotalWideBandPower ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [22]

ReferenceClockAvailability ::= ENUMERATED {
    available,
    notAvailable
}

ReferenceSFNoffset ::= INTEGER (0..255)

Reference-E-TFCI-Information ::= SEQUENCE (SIZE (1..maxNrOfRefETFCIs)) OF Reference-E-TFCI-Information-Item

Reference-E-TFCI-Information-Item ::= SEQUENCE {
    reference-E-TFCI                E-TFCI,
    reference-E-TFCI-PO             Reference-E-TFCI-PO,
    iE-Extensions                   ProtocolExtensionContainer { { Reference-E-TFCI-Information-Item-ExtIEs} }     OPTIONAL,
    ...
}

Reference-E-TFCI-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Reference-E-TFCI-PO ::= INTEGER (0.. maxNrOfRefETFCI-PO-QUANTSTEPs)
    -- FFS according to mapping in [21]

RepetitionLength ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64,
    ...
}
```

```
RepetitionNumber0 ::= INTEGER (0..255)

RepetitionNumber1 ::= INTEGER (1..256)

RefTFCNumber ::= INTEGER (0..3)

ReportCharacteristics ::= CHOICE {
    onDemand            NULL,
    periodic            ReportCharacteristicsType-ReportPeriodicity,
    event-a             ReportCharacteristicsType-EventA,
    event-b             ReportCharacteristicsType-EventB,
    event-c             ReportCharacteristicsType-EventC,
    event-d             ReportCharacteristicsType-EventD,
    event-e             ReportCharacteristicsType-EventE,
    event-f             ReportCharacteristicsType-EventF,
    ...,
    extension-ReportCharacteristics     Extension-ReportCharacteristics
}

Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}

Extension-ReportCharacteristicsIE NBAP-PROTOCOL-IES ::= {
    { ID id-ReportCharacteristicsType-OnModification    CRITICALITY reject  TYPE ReportCharacteristicsType-OnModification   PRESENCE mandatory }
}

ReportCharacteristicsType-EventA ::= SEQUENCE {
    measurementThreshold            ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime                       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventA-ExtIEs} }       OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventA-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventB ::= SEQUENCE {
    measurementThreshold            ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime                       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventB-ExtIEs} }       OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventC ::= SEQUENCE {
    measurementIncreaseThreshold    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime           ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventC-ExtIEs} }       OPTIONAL,
    ...
    }
```

```
ReportCharacteristicsType-EventC-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventD ::= SEQUENCE {
    measurementDecreaseThreshold    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime           ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventD-ExtIEs} }         OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventE ::= SEQUENCE {
    measurementThreshold1           ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2           ReportCharacteristicsType-MeasurementThreshold              OPTIONAL,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime   OPTIONAL,
    reportPeriodicity               ReportCharacteristicsType-ReportPeriodicity                 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventE-ExtIEs} }         OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventE-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventF ::= SEQUENCE {
    measurementThreshold1           ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2           ReportCharacteristicsType-MeasurementThreshold              OPTIONAL,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime   OPTIONAL,
    reportPeriodicity               ReportCharacteristicsType-ReportPeriodicity                 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventF-ExtIEs} }         OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventF-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-OnModification ::= SEQUENCE {
    measurementThreshold            ReportCharacteristicsType-MeasurementThreshold,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-OnModification-ExtIEs} }    OPTIONAL,
        ...
    }

ReportCharacteristicsType-OnModification-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold ::= CHOICE {
    received-total-wide-band-power                          Received-total-wide-band-power-Value-IncrDecrThres,
```

```
    transmitted-carrier-power       Transmitted-Carrier-Power-Value,
    acknowledged-prach-preambles            Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                 UL-TimeslotISCP-Value-IncrDecrThres,
    sir                         SIR-Value-IncrDecrThres,
    sir-error                   SIR-Error-Value-IncrDecrThres,
    transmitted-code-power          Transmitted-Code-Power-Value-IncrDecrThres,
    rscp                            RSCP-Value-IncrDecrThres,
    round-trip-time                 Round-Trip-Time-IncrDecrThres,
    notUsed-1-acknowledged-PCPCH-access-preambles       NULL,
    notUsed-2-detected-PCPCH-access-preambles           NULL,
    ...,
    extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold        Extension-ReportCharacteristicsType-
MeasurementIncreaseDecreaseThreshold
}

Extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold    ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsType-
MeasurementIncreaseDecreaseThresholdIE }}

Extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThresholdIE NBAP-PROTOCOL-IES ::= {
{ ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission           CRITICALITY reject  TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue PRESENCE mandatory}|
{ ID id-Transmitted-Carrier-Power-For-CellPortion       CRITICALITY reject  TYPE Transmitted-Carrier-Power-Value    PRESENCE mandatory }|
{ ID id-Received-total-wide-band-power-For-CellPortion  CRITICALITY reject  TYPE Received-total-wide-band-power-Value-IncrDecrThres     PRESENCE
mandatory }|
{ ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion    CRITICALITY reject   TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue      PRESENCE mandatory }|
{ ID id-UpPTSInterferenceValue      CRITICALITY reject  TYPE    UpPTSInterferenceValue      PRESENCE mandatory }
}

ReportCharacteristicsType-MeasurementThreshold ::= CHOICE {
    received-total-wide-band-power                          Received-total-wide-band-power-Value,
    transmitted-carrier-power       Transmitted-Carrier-Power-Value,
    acknowledged-prach-preambles            Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                 UL-TimeslotISCP-Value,
    sir                         SIR-Value,
    sir-error                   SIR-Error-Value,
    transmitted-code-power          Transmitted-Code-Power-Value,
    rscp                            RSCP-Value,
    rx-timing-deviation             Rx-Timing-Deviation-Value,
    round-trip-time                 Round-Trip-Time-Value,
    notUsed-1-acknowledged-PCPCH-access-preambles       NULL,
    notUsed-2-detected-PCPCH-access-preambles           NULL,
    ...,
    extension-ReportCharacteristicsType-MeasurementThreshold        Extension-ReportCharacteristicsType-MeasurementThreshold
}

Extension-ReportCharacteristicsType-MeasurementThreshold    ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsType-
MeasurementThresholdIE }}

Extension-ReportCharacteristicsType-MeasurementThresholdIE NBAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementThresholdInformation    CRITICALITY reject  TYPE TUTRANGPSMeasurementThresholdInformation   PRESENCE mandatory }|
    { ID id-SFNSFNMeasurementThresholdInformation       CRITICALITY reject  TYPE SFNSFNMeasurementThresholdInformation      PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-LCR               CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-LCR              PRESENCE mandatory}|
    { ID id-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Measurement-ValuePRESENCE mandatory}|
```

```
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission CRITICALITY reject    TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue PRESENCE mandatory}|
    { ID id-HS-DSCHRequiredPowerValue                   CRITICALITY reject  TYPE HS-DSCHRequiredPowerValue                 PRESENCE mandatory}|
    { ID id-Transmitted-Carrier-Power-For-CellPortion   CRITICALITY reject  TYPE Transmitted-Carrier-Power-Value          PRESENCE mandatory }|
    { ID id-Received-total-wide-band-power-For-CellPortion  CRITICALITY reject  TYPE Received-total-wide-band-power-Value   PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion   CRITICALITY reject  TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue      PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue                      CRITICALITY reject  TYPE UpPTSInterferenceValue                  PRESENCE mandatory }|
    { ID id-DLTransmissionBranchLoadValue               CRITICALITY reject  TYPE DLTransmissionBranchLoadValue           PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPowerValue-For-Cell-Portion  CRITICALITY reject  TYPE HS-DSCHRequiredPowerValue               PRESENCE mandatory }|
    { ID id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue     CRITICALITY reject  TYPE E-DCH-Non-serving-Relative-Grant-Down-Commands
    PRESENCE mandatory }
}

ReportCharacteristicsType-ScaledMeasurementChangeTime ::= CHOICE {
    msec                MeasurementChangeTime-Scaledmsec,
    ...
}

MeasurementChangeTime-Scaledmsec ::= INTEGER (1..6000,...)
-- MeasurementChangeTime-Scaledmsec = Time * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportCharacteristicsType-ScaledMeasurementHysteresisTime ::= CHOICE {
    msec                MeasurementHysteresisTime-Scaledmsec,
    ...
}

MeasurementHysteresisTime-Scaledmsec ::= INTEGER (1..6000,...)
-- MeasurementHysteresisTime-Scaledmsec = Time * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    msec                ReportPeriodicity-Scaledmsec,
    min                 ReportPeriodicity-Scaledmin,
    ...
}

ReportPeriodicity-Scaledmsec ::= INTEGER (1..6000,...)
-- ReportPeriodicity-msec = ReportPeriodicity * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportPeriodicity-Scaledmin ::= INTEGER (1..60,...)
-- Unit min, Range 1min .. 60min(hour), Step 1min

ReportPeriodicity-Scaledhour ::= INTEGER (1..24,...)
-- Unit hour, Range 1hour .. 24hours(day), Step 1hour

ResourceOperationalState ::= ENUMERATED {
    enabled,
    disabled
}

RL-ID ::= INTEGER (0..31)
```

```
RL-Set-ID               ::= INTEGER (0..31)

RLC-Mode    ::= ENUMERATED {
    rLC-AM,
    rLC-UM,
    ...
}

Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)

RNC-ID                  ::= INTEGER (0..4095)

Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [22]

RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [23]

RSCP-Value-IncrDecrThres ::= INTEGER (0..126)

Received-total-wide-band-power-For-CellPortion-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Received-total-wide-band-power-For-
CellPortion-Value-Item

Received-total-wide-band-power-For-CellPortion-Value-Item ::= SEQUENCE{
    cellPortionID                       CellPortionID,
    received-total-wide-band-power-value    Received-total-wide-band-power-Value,
    iE-Extensions                       ProtocolExtensionContainer { { Received-total-wide-band-power-For-CellPortion-Value-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Received-total-wide-band-power-For-CellPortion-Value-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Received-total-wide-band-power-Value ::= INTEGER(0..621)
-- According to mapping in [22]/[23]

Received-total-wide-band-power-Value-IncrDecrThres ::= INTEGER (0..620)

RequestedDataValueInformation ::= CHOICE {
    informationAvailable        InformationAvailable,
    informationnotAvailable     InformationnotAvailable
}

InformationAvailable::= SEQUENCE {
    requesteddataValue      RequestedDataValue,
    ie-Extensions           ProtocolExtensionContainer { { InformationAvailableItem-ExtIEs} }                       OPTIONAL,
    ...
}
```

```
InformationAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationnotAvailable ::= NULL

RequestedDataValue ::= SEQUENCE {
    dgps-corrections        DGPSCorrections                                          OPTIONAL,
    gps-navandrecovery      GPS-NavigationModel-and-TimeRecovery                         OPTIONAL,
    gps-ionos-model         GPS-Ionospheric-Model                                        OPTIONAL,
    gps-utc-model           GPS-UTC-Model                                            OPTIONAL,
    gps-almanac             GPS-Almanac                                              OPTIONAL,
    gps-rt-integrity        GPS-RealTime-Integrity                                   OPTIONAL,
    gpsrxpos                GPS-RX-POS                                               OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RequestedDataValue-ExtIEs} }     OPTIONAL,
    ...
}

RequestedDataValue-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
-- According to mapping in [23]

Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
-- According to mapping in [23]

-- ========================================
--  S
-- ========================================

AdjustmentPeriod            ::= INTEGER(1..256)
-- Unit Frame

SAT-ID ::= INTEGER (0..63)

SAT-Info-Almanac ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-Almanac-Item

SAT-Info-Almanac-Item ::= SEQUENCE {
    data-id             DATA-ID,
    sat-id              SAT-ID,
    gps-e-alm           BIT STRING (SIZE (16)),
    gps-toa-alm         BIT STRING (SIZE (8)),
    gps-delta-I-alm     BIT STRING (SIZE (16)),
    omegadot-alm        BIT STRING (SIZE (16)),
    svhealth-alm        BIT STRING (SIZE (8)),
    gps-a-sqrt-alm      BIT STRING (SIZE (24)),
    omegazero-alm       BIT STRING (SIZE (24)),
    m-zero-alm          BIT STRING (SIZE (24)),
    gps-omega-alm       BIT STRING (SIZE (24)),
    gps-af-zero-alm     BIT STRING (SIZE (11)),
```

```
    gps-af-one-alm     BIT STRING (SIZE (11)),
    ie-Extensions      ProtocolExtensionContainer { { SAT-Info-Almanac-Item-ExtIEs} }       OPTIONAL,
   ...
}   -- This GPS-Almanac-Information is for the 1st 16 satellites

SAT-Info-Almanac-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SAT-Info-Almanac-ExtList    ::= SEQUENCE (SIZE (1..maxNrOfSatAlmanac-maxNoSat)) OF SAT-Info-Almanac-ExtItem

SAT-Info-Almanac-ExtItem    ::= SEQUENCE {
    data-id            DATA-ID,
    sat-id             SAT-ID,
    gps-e-alm          BIT STRING (SIZE (16)),
    gps-toa-alm        BIT STRING (SIZE (8)),
    gps-delta-I-alm    BIT STRING (SIZE (16)),
    omegadot-alm       BIT STRING (SIZE (16)),
    svhealth-alm       BIT STRING (SIZE (8)),
    gps-a-sqrt-alm     BIT STRING (SIZE (24)),
    omegazero-alm      BIT STRING (SIZE (24)),
    m-zero-alm         BIT STRING (SIZE (24)),
    gps-omega-alm      BIT STRING (SIZE (24)),
    gps-af-zero-alm    BIT STRING (SIZE (11)),
    gps-af-one-alm     BIT STRING (SIZE (11)),
    ie-Extensions      ProtocolExtensionContainer { { SAT-Info-Almanac-ExtItemIEs } }       OPTIONAL,
   ...
}   --  Includes the GPS-Almanac-Information for 17th through 32nd satellites.

SAT-Info-Almanac-ExtItemIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SAT-Info-DGPSCorrections ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-DGPSCorrections-Item

SAT-Info-DGPSCorrections-Item ::= SEQUENCE {
    sat-id                                  SAT-ID,
    iode-dgps                               BIT STRING (SIZE (8)),
    udre                                    UDRE,
    prc                                     PRC,
    range-correction-rate                   Range-Correction-Rate,
    ie-Extensions                           ProtocolExtensionContainer { { SAT-Info-DGPSCorrections-Item-ExtIEs} }  OPTIONAL,
   ...
}

SAT-Info-DGPSCorrections-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SATInfo-RealTime-Integrity ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-RealTime-Integrity-Item

SAT-Info-RealTime-Integrity-Item ::= SEQUENCE {
```

```
  bad-sat-id       SAT-ID,
  ie-Extensions    ProtocolExtensionContainer { { SAT-Info-RealTime-Integrity-Item-ExtIEs} }                    OPTIONAL,
   ...
}

SAT-Info-RealTime-Integrity-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ScaledAdjustmentRatio           ::= INTEGER(0..100)
-- AdjustmentRatio  = ScaledAdjustmentRatio / 100

MaxAdjustmentStep           ::= INTEGER(1..10)
-- Unit Slot

SchedulingInformation           ::= ENUMERATED {
    included,
    not-included
}


SchedulingPriorityIndicator             ::= INTEGER (0..15)      -- lowest (0), highest (15)

SID ::= INTEGER (0..maxNrOfMACdPDUIndexes-1)

ScramblingCodeNumber ::= INTEGER (0..15)

Secondary-CPICH-Information-Change ::= CHOICE {
    new-secondary-CPICH                 CommonPhysicalChannelID,
    secondary-CPICH-shall-not-be-used   NULL,
...
}

SecondaryCCPCH-SlotFormat ::= INTEGER(0..17,...)

Segment-Type ::= ENUMERATED {
        first-segment,
        first-segment-short,
        subsequent-segment,
        last-segment,
        last-segment-short,
        complete-SIB,
        complete-SIB-short,
        ...
}

Serving-E-DCH-RL-ID ::= CHOICE {
    serving-E-DCH-RL-in-this-NodeB              Serving-E-DCH-RL-in-this-NodeB,
    serving-E-DCH-RL-not-in-this-NodeB          NULL,
    ...
}

Serving-E-DCH-RL-in-this-NodeB ::= SEQUENCE {
    rL-ID                                       RL-ID,
```

```
    iE-Extensions                               ProtocolExtensionContainer { { Serving-E-DCH-RL-in-this-NodeB-ExtIEs} }        OPTIONAL,
    ...
}

Serving-E-DCH-RL-in-this-NodeB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFN ::= INTEGER (0..4095)

SFNSFN-FDD ::= INTEGER (0..614399)

SFNSFN-TDD ::= INTEGER (0..40961)

SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s

SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s

SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit                   SFNSFNChangeLimit                   OPTIONAL,
    predictedSFNSFNDeviationLimit       PredictedSFNSFNDeviationLimit       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

SFNSFNMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation       SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-Id                       UC-Id,
            sFNSFNValue                 SFNSFNValue,
            sFNSFNQuality               SFNSFNQuality               OPTIONAL,
            sFNSFNDriftRate             SFNSFNDriftRate,
            sFNSFNDriftRateQuality      SFNSFNDriftRateQuality      OPTIONAL,
            sFNSFNTimeStampInformation  SFNSFNTimeStampInformation,
            iE-Extensions       ProtocolExtensionContainer { { SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }       OPTIONAL,
            ...
        },
    unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation     SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
        SEQUENCE {
            uC-Id                       UC-Id,
            iE-Extensions       ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }       OPTIONAL,
                ...
```

```
        },
    iE-Extensions       ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }                OPTIONAL,
    ...
}

SFNSFNMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

ShutdownTimer ::= INTEGER (1..3600)
-- Unit sec

SIB-Originator ::= ENUMERATED {
    nodeB,
    cRNC,
    ...
}

SIR-Error-Value ::= INTEGER (0..125)
-- According to mapping in [22]

SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD     SFN,
    sFNSFNTimeStamp-TDD     SFNSFNTimeStamp-TDD,
    ...}

SFNSFNTimeStamp-TDD::= SEQUENCE {
    sFN                 SFN,
    timeSlot            TimeSlot,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs} }                        OPTIONAL,
    ...
}

SFNSFNTimeStamp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNValue ::= CHOICE {
```

```
    sFNSFN-FDD      SFNSFN-FDD,
    sFNSFN-TDD      SFNSFN-TDD,
    ...
}

SIR-Error-Value-IncrDecrThres ::= INTEGER (0..124)

SIR-Value ::= INTEGER (0..63)
-- According to mapping in [22]/[23]

SIR-Value-IncrDecrThres ::= INTEGER (0..62)

SignallingBearerRequestIndicator::= ENUMERATED {bearerRequested}

SpecialBurstScheduling ::= INTEGER (1..256) -- Number of frames between special burst transmission during DTX


Start-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    start-of-audit-sequence,
    not-start-of-audit-sequence
}

STTD-Indicator ::= ENUMERATED {
    active,
    inactive,
    ...
}

SSDT-SupportIndicator ::= ENUMERATED {
    not-Used-sSDT-Supported,
    sSDT-not-supported
}

SyncCase ::= INTEGER (1..2,...)

SYNCDlCodeId ::= INTEGER (1..32,...)

SyncFrameNumber ::= INTEGER (1..10)

SynchronisationReportCharacteristics ::= SEQUENCE {
    synchronisationReportCharacteristicsType    SynchronisationReportCharacteristicsType,
    synchronisationReportCharactThreExc         SynchronisationReportCharactThreExc     OPTIONAL,
        -- This IE shall be included if the synchronisationReportCharacteristicsType IE is set to 'thresholdExceeding'.
    iE-Extensions                               ProtocolExtensionContainer { { SynchronisationReportCharacteristics-ExtIEs } } OPTIONAL,
    ...
}

SynchronisationReportCharacteristics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SyncDLCodeIdThreInfoLCR CRITICALITY ignore EXTENSION    SyncDLCodeIdThreInfoLCR     PRESENCE optional },
    ...
}

SynchronisationReportCharactThreExc ::=     SEQUENCE (SIZE (1..maxNrOfCellSyncBursts)) OF SynchronisationReportCharactThreInfoItem  -- Mandatory
for 3.84Mcps TDD only. Not Applicable to 1.28Mcps TDD.
```

```
SynchronisationReportCharactThreInfoItem ::= SEQUENCE {
    syncFrameNumber             SyncFrameNumber,
    cellSyncBurstInformation    SEQUENCE (SIZE (1.. maxNrOfReceptsPerSyncFrame)) OF SynchronisationReportCharactCellSyncBurstInfoItem,
    iE-Extensions               ProtocolExtensionContainer { { SynchronisationReportCharactThreInfoItem-ExtIEs } }    OPTIONAL,
    ...
}

SynchronisationReportCharactThreInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SynchronisationReportCharactCellSyncBurstInfoItem ::= SEQUENCE {
    cellSyncBurstCode               CellSyncBurstCode,
    cellSyncBurstCodeShift          CellSyncBurstCodeShift,
    cellSyncBurstTiming             CellSyncBurstTiming             OPTIONAL,
    cellSyncBurstTimingThreshold    CellSyncBurstTimingThreshold    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs } }   OPTIONAL,
    ...
}

SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdThreInfoLCR ::= SEQUENCE (SIZE (0..maxNrOfSyncFramesLCR)) OF SyncDLCodeIdThreInfoList  --Mandatory for 1.28Mcps TDD only. Not
Applicable to 3.84Mcps TDD.

SyncDLCodeIdThreInfoList ::= SEQUENCE {
    syncFrameNoToReceive            SyncFrameNumber,
    syncDLCodeIdInfoLCR             SyncDLCodeInfoListLCR,
    iE-Extensions                   ProtocolExtensionContainer { { SyncDLCodeIdThreInfoList-ExtIEs } }    OPTIONAL,
    ...
}

SyncDLCodeIdThreInfoList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeInfoListLCR ::= SEQUENCE (SIZE (1..maxNrOfSyncDLCodesLCR)) OF SyncDLCodeInfoItemLCR

SyncDLCodeInfoItemLCR ::= SEQUENCE {
    syncDLCodeId                    SYNCDlCodeId,
    syncDLCodeIdArrivTime           CellSyncBurstTimingLCR              OPTIONAL,
    syncDLCodeIdTimingThre          CellSyncBurstTimingThreshold        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SyncDLCodeInfoItem-LCR-ExtIEs } }   OPTIONAL,
    ...
}

SyncDLCodeInfoItem-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SynchronisationReportCharacteristicsType ::= ENUMERATED {
```

```
    frameRelated,
    sFNperiodRelated,
    cycleLengthRelated,
    thresholdExceeding,
    frequencyAcquisitionCompleted,
    ...
}

SynchronisationReportType ::= ENUMERATED {
    initialPhase,
    steadyStatePhase,
    lateEntrantCell,
    frequencyAcquisition,
    ...
}

-- ========================================
--  T
-- ========================================

T1 ::= ENUMERATED {v10,v20,v30,v40,v50,v60,v70,v80,v90,v100,v120,v140,v160,v200,v300,v400,...}

T-Cell ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    v4,
    v5,
    v6,
    v7,
    v8,
    v9
}

T-RLFAILURE ::= INTEGER (0..255)
-- Unit seconds, Range 0s .. 25.5s, Step 0.1s

TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range –7dB .. +8dB, Step 1dB

TDD-ChannelisationCode ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
```

```
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    ...
}

TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    modulation                      Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD
    iE-Extensions                           ProtocolExtensionContainer { { TDD-ChannelisationCodeLCR-ExtIEs} }        OPTIONAL,
    ...
}

TDD-ChannelisationCodeLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem

TDD-DL-Code-InformationItem  ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { TDD-DL-Code-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

TDD-DL-Code-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF TDD-DL-Code-LCR-InformationItem

TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    tdd-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR,
    tdd-DL-DPCH-TimeSlotFormat-LCR      TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                       ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }     OPTIONAL,
    ...
```

```
}

TDD-DL-Code-LCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                        QPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK                    EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    ...
}

QPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

TDD-DPCHOffset ::= CHOICE {
    initialOffset       INTEGER (0..255),
    noinitialOffset     INTEGER (0..63)
}

TDD-PhysicalChannelOffset ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors        SEQUENCE {
        gainFactor                  CHOICE {
            fdd                         SEQUENCE {
                betaC                       BetaCD,
                betaD                       BetaCD,
                iE-Extensions       ProtocolExtensionContainer { { GainFactorFDD-ExtIEs } }     OPTIONAL,
                ...
            },
            tdd                         BetaCD,
            ...
        },
        refTFCNumber                RefTFCNumber    OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs } }                    OPTIONAL,
        ...
    },
    computedGainFactors             RefTFCNumber,
```

```
    ...
}

GainFactorFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SignalledGainFactors-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem

TDD-UL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { TDD-UL-Code-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

TDD-UL-Code-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF TDD-UL-Code-LCR-InformationItem

TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    tdd-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR      TDD-UL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                       ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                        QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK                    EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    ...
}

QPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)

EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    ...
```

```
}

TFCI-Presence ::= ENUMERATED {
    present,
    not-present
}

TFCI-SignallingMode ::= SEQUENCE {
    tFCI-SignallingOption       TFCI-SignallingMode-TFCI-SignallingOption,
    not-Used-splitType          NULL                OPTIONAL,
    not-Used-lengthOfTFCI2      NULL                OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { TFCI-SignallingMode-ExtIEs} }                    OPTIONAL,
    ...
}

TFCI-SignallingMode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCI-SignallingMode-TFCI-SignallingOption ::= ENUMERATED {
    normal,
    not-Used-split
}

TGD                 ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence


TGPRC               ::= INTEGER (0..511)
-- 0 = infinity


TGPSID              ::= INTEGER (1.. maxTGPS)

TGSN                ::= INTEGER (0..14)

TimeSlot ::= INTEGER (0..14)

TimeSlotDirection ::= ENUMERATED {
    ul,
    dl,
    ...
}

TimeSlotLCR ::= INTEGER (0..6)

TimeSlotStatus ::= ENUMERATED {
    active,
    not-active,
    ...
}

TimingAdjustmentValue ::= CHOICE {
    initialPhase        INTEGER (0..1048575,...),
```

```
    steadyStatePhase    INTEGER (0..255,...)
}

TimingAdjustmentValueLCR ::= CHOICE {
    initialPhase        INTEGER (0..524287,...),
    steadyStatePhase    INTEGER (0..127,...)
}

TimingAdvanceApplied ::= ENUMERATED {
    yes,
    no
}

SynchronisationIndicator ::= ENUMERATED {
    timingMaintainedSynchronisation,
    ...
}

TnlQos ::= CHOICE {
    dsField                 DsField,
    genericTrafficCategory  GenericTrafficCategory,
    ...
}

ToAWE ::= INTEGER (0..2559)
-- Unit ms

ToAWS ::= INTEGER (0..1279)
-- Unit ms

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
    SEQUENCE {
        tGPSID          TGPSID,
        tGSN            TGSN,
        tGL1            GapLength,
        tGL2            GapLength   OPTIONAL,
        tGD             TGD,
        tGPL1           GapDuration,
        not-to-be-used-1            GapDuration OPTIONAL,
            -- This IE shall never be included in the SEQUENCE. If received it shall be ignored
        uL-DL-mode      UL-DL-mode,
        downlink-Compressed-Mode-Method     Downlink-Compressed-Mode-Method     OPTIONAL,
            -- This IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL"
        uplink-Compressed-Mode-Method       Uplink-Compressed-Mode-Method       OPTIONAL,
            -- This IE shall be present if the UL/DL mode IE is set to "UL only" or "UL/DL"
        dL-FrameType        DL-FrameType,
        delta-SIR1          DeltaSIR,
        delta-SIR-after1    DeltaSIR,
```

```
        delta-SIR2          DeltaSIR    OPTIONAL,
        delta-SIR-after2    DeltaSIR    OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
        ...
    }


Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


TransmissionGapPatternSequenceCodeInformation   ::= ENUMERATED{
   code-change,
   nocode-change
}

TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue ::= SEQUENCE (SIZE
(1..maxNrOfCellPortionsPerCell)) OF TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-
Item

TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-Item ::= SEQUENCE{
    cellPortionID                           CellPortionID,
    transmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue  TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue,
    iE-Extensions                           ProtocolExtensionContainer { { TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-
RGCHOrE-HICHTransmissionCellPortionValue-Item-ExtIEs} }     OPTIONAL,
    ...
}

TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-Item-ExtIEs NBAP-PROTOCOL-EXTENSION
::= {
    ...
}

TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue ::= INTEGER(0..100)
-- According to mapping in [22] and [23]

Transmitted-Carrier-Power-For-CellPortion-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Transmitted-Carrier-Power-For-CellPortion-
Value-Item

Transmitted-Carrier-Power-For-CellPortion-Value-Item ::= SEQUENCE{
    cellPortionID                           CellPortionID,
    transmitted-Carrier-Power-Value         Transmitted-Carrier-Power-Value,
    iE-Extensions                           ProtocolExtensionContainer { { Transmitted-Carrier-Power-For-CellPortion-Value-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Transmitted-Carrier-Power-For-CellPortion-Value-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- According to mapping in [22]/[23]

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [22]/[23]. Values 0 to 9 and 123 to 127 shall not be used.

Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)

TransmissionDiversityApplied ::= BOOLEAN
-- true: applied, false: not applied

TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
}

TFCS ::= SEQUENCE {
    tFCSvalues                  CHOICE {
        no-Split-in-TFCI            TFCS-TFCSList,
        not-Used-split-in-TFCI      NULL,
        -- This choice shall never be made by the CRNC and the Node B shall consider the procedure as failed if it is received.
        ...
    },
    iE-Extensions       ProtocolExtensionContainer  { { TFCS-ExtIEs} }      OPTIONAL,
    ...
}

TFCS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
        cTFC                TFCS-CTFC,
        tFC-Beta        TransportFormatCombination-Beta     OPTIONAL,
        -- The IE shall be present if the TFCS concerns a UL DPCH or PRACH channel [FDD – or PCPCH channel].
        iE-Extensions       ProtocolExtensionContainer  { { TFCS-TFCSList-ExtIEs} }     OPTIONAL,
        ...
}

TFCS-TFCSList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-CTFC ::= CHOICE {
    ctfc2bit                            INTEGER (0..3),
    ctfc4bit                            INTEGER (0..15),
    ctfc6bit                            INTEGER (0..63),
    ctfc8bit                            INTEGER (0..255),
    ctfc12bit                           INTEGER (0..4095),
    ctfc16bit                           INTEGER (0..65535),
    ctfcmaxbit                          INTEGER (0..maxCTFC)
}
```

```
TransportBearerRequestIndicator ::= ENUMERATED {
    bearerRequested,
    bearerNotRequested,
    ...
}

TransportFormatSet ::= SEQUENCE {
    dynamicParts            TransportFormatSet-DynamicPartList,
    semi-staticPart         TransportFormatSet-Semi-staticPart,
    iE-Extensions           ProtocolExtensionContainer  { { TransportFormatSet-ExtIEs} }        OPTIONAL,
    ...
}

TransportFormatSet-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
        nrOfTransportBlocks         TransportFormatSet-NrOfTransportBlocks,
        transportBlockSize          TransportFormatSet-TransportBlockSize       OPTIONAL,
        -- This IE shall be present if the Number of Transport Blocks IE is set to a value greater than 0
        mode                        TransportFormatSet-ModeDP,
        iE-Extensions               ProtocolExtensionContainer  { { TransportFormatSet-DynamicPartList-ExtIEs} }      OPTIONAL,
        ...
    }

TransportFormatSet-DynamicPartList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation     TransmissionTimeIntervalInformation     OPTIONAL,
    -- This IE shall be present if the Transmission Time Interval IE in the Semi-static Transport Format Information IE is set to 'dynamic'
    iE-Extensions                           ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    ...
    }

TDD-TransportFormatSet-ModeDP-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-count)) OF
    SEQUENCE {
        transmissionTimeInterval        TransportFormatSet-TransmissionTimeIntervalDynamic,
    iE-Extensions                       ProtocolExtensionContainer { { TransmissionTimeIntervalInformation-ExtIEs} }     OPTIONAL,
    ...
}

TransmissionTimeIntervalInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTimeInterval            TransportFormatSet-TransmissionTimeIntervalSemiStatic,
    channelCoding                   TransportFormatSet-ChannelCodingType,
    codingRate                      TransportFormatSet-CodingRate               OPTIONAL,
    -- This IE shall be present if the Type of channel coding IE is set to 'convolutional' or 'turbo'
    rateMatchingAttribute           TransportFormatSet-RateMatchingAttribute,
    cRC-Size                        TransportFormatSet-CRC-Size,
    mode                            TransportFormatSet-ModeSSP  ,
    iE-Extensions                   ProtocolExtensionContainer { { TransportFormatSet-Semi-staticPart-ExtIEs} }       OPTIONAL,
    ...
}

TransportFormatSet-Semi-staticPart-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
    ...
}

TransportFormatSet-CodingRate ::= ENUMERATED {
    half,
    third,
    ...
}

TransportFormatSet-CRC-Size ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24,
    ...
}

TransportFormatSet-ModeDP ::= CHOICE {
    tdd                 TDD-TransportFormatSet-ModeDP,
    notApplicable               NULL,
    ...
}

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd             TransportFormatSet-SecondInterleavingMode,
    notApplicable               NULL,
    ...
}

TransportFormatSet-NrOfTransportBlocks ::= INTEGER (0..512)

TransportFormatSet-RateMatchingAttribute ::= INTEGER (1..maxRateMatching)
```

```
TransportFormatSet-SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeSlot-related,
    ...
}

TransportFormatSet-TransmissionTimeIntervalDynamic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    ...
}

TransportFormatSet-TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    dynamic,
    ...,
    msec-5
}

TransportFormatSet-TransportBlockSize ::= INTEGER (0..5000)

TransportLayerAddress ::= BIT STRING (SIZE (1..160, ...))

TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
}

TUTRANGPS ::= SEQUENCE {
    ms-part     INTEGER (0..16383),
    ls-part     INTEGER (0..4294967295)
}

TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s

TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s

TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
    accuracy-class-B,
    accuracy-class-C,
    ...
}
```

```
TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit                    TUTRANGPSChangeLimit                    OPTIONAL,
    predictedTUTRANGPSDeviationLimit        PredictedTUTRANGPSDeviationLimit        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { TUTRANGPSMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

TUTRANGPSMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
        tUTRANGPS                       TUTRANGPS,
        tUTRANGPSQuality                TUTRANGPSQuality                OPTIONAL,
        tUTRANGPSDriftRate              TUTRANGPSDriftRate,
        tUTRANGPSDriftRateQuality       TUTRANGPSDriftRateQuality       OPTIONAL,
        iE-Extensions                   ProtocolExtensionContainer { {TUTRANGPSMeasurementValueInformationItem-ExtIEs} }    OPTIONAL,
        ...
}

TUTRANGPSMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

TypeOfError ::= ENUMERATED {
    not-understood,
    missing,
    ...
}

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UARFCN ::= INTEGER (0..16383, ...)
-- corresponds to 0MHz .. 3276.6MHz

UC-Id ::= SEQUENCE {
    rNC-ID              RNC-ID,
    c-ID                C-ID,
    iE-Extensions           ProtocolExtensionContainer { {UC-Id-ExtIEs} } OPTIONAL,
    ...
}
UC-Id-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UDRE ::= ENUMERATED {
    udre-minusequal-one-m,
```

```
    udre-betweenoneandfour-m,
    udre-betweenfourandeight-m,
    udre-greaterequaleight-m
}


UE-Capability-Information ::= SEQUENCE {
    hSDSCH-Physical-Layer-Category      INTEGER (1..64,...),
    iE-Extensions                       ProtocolExtensionContainer { { UE-Capability-Information-ExtIEs } }        OPTIONAL,
    ...
}

UE-Capability-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


UL-CapacityCredit ::= INTEGER (0..65535)

UL-DL-mode ::= ENUMERATED {
    ul-only,
    dl-only,
    both-ul-and-dl
}

UL-DPDCH-Indicator-For-E-DCH-Operation ::= ENUMERATED {
    ul-DPDCH-present,
    ul-DPDCH-not-present
}


Uplink-Compressed-Mode-Method   ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
    ...
}

UL-Timeslot-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationItem

UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    uL-Code-InformationList                 TDD-UL-Code-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-TimeslotLCR-InformationItem

UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    tFCI-Presence                       TFCI-Presence,
    uL-Code-InformationList             TDD-UL-Code-LCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

UL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCCH-SlotFormat ::= INTEGER (0..5,...)

UL-SIR ::= INTEGER (-82..173)
-- According to mapping in [16]

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
    ...
}

UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
}

UL-ScramblingCode ::= SEQUENCE {
    uL-ScramblingCodeNumber         UL-ScramblingCodeNumber,
    uL-ScramblingCodeLength         UL-ScramblingCodeLength,
    iE-Extensions                   ProtocolExtensionContainer { { UL-ScramblingCode-ExtIEs } }                   OPTIONAL,
    ...
}

UL-ScramblingCode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-ScramblingCodeNumber ::= INTEGER (0..16777215)

UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
}

UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
    uL-Synchronisation-StepSize         UL-Synchronisation-StepSize,
    uL-Synchronisation-Frequency        UL-Synchronisation-Frequency,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }   OPTIONAL,
    ...
```

```
}

UL-Synchronisation-Parameters-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Synchronisation-StepSize ::= INTEGER (1..8)

UL-Synchronisation-Frequency ::= INTEGER (1..8)

UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF  UL-TimeSlot-ISCP-InfoItem

UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot                        TimeSlot,
    iSCP                            UL-TimeslotISCP-Value,
    iE-Extensions                   ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} }               OPTIONAL,
    ...
 }

UL-TimeSlot-ISCP-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF   UL-TimeSlot-ISCP-LCR-InfoItem

UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    iSCP                            UL-TimeslotISCP-Value,
    iE-Extensions                   ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }           OPTIONAL,
    ...
 }

UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UpPTSInterferenceValue ::= INTEGER (0..127,...)

Unidirectional-DCH-Indicator    ::= ENUMERATED {
    downlink-DCH-only,
    uplink-DCH-only
}

USCH-Information ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationItem

USCH-InformationItem ::= SEQUENCE {
    uSCH-ID                             USCH-ID,
    cCTrCH-ID                           CCTrCH-ID,          -- UL CCTrCH in which the USCH is mapped
    transportFormatSet                  TransportFormatSet, -- For USCH
    allocationRetentionPriority         AllocationRetentionPriority,
    iE-Extensions                       ProtocolExtensionContainer { { USCH-InformationItem-ExtIEs} }           OPTIONAL,
    ...
}
```

```
USCH-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                       CRITICALITY ignore      EXTENSION   BindingID                           PRESENCE    optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress               PRESENCE    optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                          CRITICALITY ignore      EXTENSION   TnlQos  PRESENCE optional          },
    ...
}

USCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem

USCH-InformationResponseItem ::= SEQUENCE {
    uSCH-ID                                 USCH-ID,
    bindingID                               BindingID               OPTIONAL,
    transportLayerAddress                   TransportLayerAddress   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { USCH-InformationResponseItem-ExtIEs} }    OPTIONAL,
    ...
}

USCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotISCP-Value ::= INTEGER (0..127)
-- According to mapping in [23]

UL-TimeslotISCP-Value-IncrDecrThres ::= INTEGER (0..126)

USCH-ID ::= INTEGER (0..255)

-- ==========================================
--  V
-- ==========================================

-- ==========================================
--  W
-- ==========================================

-- ==========================================
--  X
-- ==========================================

-- ==========================================
--  Y
-- ==========================================

-- ==========================================
--  Z
-- ==========================================

END
```

## 9.3.5 Common Definitions

```
-- **************************************************************
--
-- Common definitions
--
-- **************************************************************

NBAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-CommonDataTypes (3)  }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- Extension constants
--
-- **************************************************************

maxPrivateIEs                   INTEGER ::= 65535
maxProtocolExtensions           INTEGER ::= 65535
maxProtocolIEs                  INTEGER ::= 65535

-- **************************************************************
--
-- Common Data Types
--
-- **************************************************************

Criticality     ::= ENUMERATED { reject, ignore, notify }

MessageDiscriminator    ::= ENUMERATED { common, dedicated }

Presence        ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID    ::= CHOICE {
    local               INTEGER (0..maxPrivateIEs),
    global              OBJECT IDENTIFIER
}

ProcedureCode   ::= INTEGER (0..255)

ProcedureID     ::= SEQUENCE {
    procedureCode           ProcedureCode,
    ddMode                  ENUMERATED { tdd, fdd, common, ... }
}

ProtocolIE-ID       ::= INTEGER (0..maxProtocolIEs)

TransactionID       ::= CHOICE {
```

```
    shortTransActionId      INTEGER (0..127),
    longTransActionId       INTEGER (0..32767)
}

TriggeringMessage   ::= ENUMERATED { initiating-message, successful-outcome, unsuccessfull-outcome, outcome }

END
```

## 9.3.6 Constant Definitions

```
-- **************************************************************
--
-- Constant definitions
--
-- **************************************************************

NBAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Constants (4)}

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    ProcedureCode,
    ProtocolIE-ID
FROM NBAP-CommonDataTypes;

-- **************************************************************
--
-- Elementary Procedures
--
-- **************************************************************

id-audit                                            ProcedureCode ::= 0
id-auditRequired                                    ProcedureCode ::= 1
id-blockResource                                    ProcedureCode ::= 2
id-cellDeletion                                     ProcedureCode ::= 3
id-cellReconfiguration                              ProcedureCode ::= 4
id-cellSetup                                        ProcedureCode ::= 5
id-cellSynchronisationInitiation                    ProcedureCode ::= 45
id-cellSynchronisationReconfiguration               ProcedureCode ::= 46
id-cellSynchronisationReporting                     ProcedureCode ::= 47
id-cellSynchronisationTermination                   ProcedureCode ::= 48
id-cellSynchronisationFailure                       ProcedureCode ::= 49
id-commonMeasurementFailure                         ProcedureCode ::= 6
id-commonMeasurementInitiation                      ProcedureCode ::= 7
id-commonMeasurementReport                          ProcedureCode ::= 8
id-commonMeasurementTermination                     ProcedureCode ::= 9
id-commonTransportChannelDelete                     ProcedureCode ::= 10
id-commonTransportChannelReconfigure                ProcedureCode ::= 11
id-commonTransportChannelSetup                      ProcedureCode ::= 12
```

```
id-compressedModeCommand                                ProcedureCode ::= 14
id-dedicatedMeasurementFailure                          ProcedureCode ::= 16
id-dedicatedMeasurementInitiation                       ProcedureCode ::= 17
id-dedicatedMeasurementReport                           ProcedureCode ::= 18
id-dedicatedMeasurementTermination                      ProcedureCode ::= 19
id-downlinkPowerControl                                 ProcedureCode ::= 20
id-downlinkPowerTimeslotControl                         ProcedureCode ::= 38
id-errorIndicationForCommon                             ProcedureCode ::= 35
id-errorIndicationForDedicated                          ProcedureCode ::= 21
id-informationExchangeFailure                           ProcedureCode ::= 40
id-informationExchangeInitiation                        ProcedureCode ::= 41
id-informationExchangeTermination                       ProcedureCode ::= 42
id-informationReporting                                 ProcedureCode ::= 43
id-BearerRearrangement                                  ProcedureCode ::= 50
id-mBMSNotificationUpdate                               ProcedureCode ::= 53
id-physicalSharedChannelReconfiguration                 ProcedureCode ::= 37
id-privateMessageForCommon                              ProcedureCode ::= 36
id-privateMessageForDedicated                           ProcedureCode ::= 22
id-radioLinkAddition                                    ProcedureCode ::= 23
id-radioLinkDeletion                                    ProcedureCode ::= 24
id-radioLinkFailure                                     ProcedureCode ::= 25
id-radioLinkPreemption                                  ProcedureCode ::= 39
id-radioLinkRestoration                                 ProcedureCode ::= 26
id-radioLinkSetup                                       ProcedureCode ::= 27
id-reset                                                ProcedureCode ::= 13
id-resourceStatusIndication                             ProcedureCode ::= 28
id-cellSynchronisationAdjustment                        ProcedureCode ::= 44
id-synchronisedRadioLinkReconfigurationCancellation     ProcedureCode ::= 29
id-synchronisedRadioLinkReconfigurationCommit           ProcedureCode ::= 30
id-synchronisedRadioLinkReconfigurationPreparation      ProcedureCode ::= 31
id-systemInformationUpdate                              ProcedureCode ::= 32
id-unblockResource                                      ProcedureCode ::= 33
id-unSynchronisedRadioLinkReconfiguration               ProcedureCode ::= 34
id-radioLinkActivation                                  ProcedureCode ::= 51
id-radioLinkParameterUpdate                             ProcedureCode ::= 52

-- **************************************************************
--
-- Lists
--
-- **************************************************************

maxNrOfCodes                INTEGER ::= 10
maxNrOfDLTSs                INTEGER ::= 15
maxNrOfDLTSLCRs             INTEGER ::= 6
maxNrOfErrors               INTEGER ::= 256
maxNrOfTFs                  INTEGER ::= 32
maxNrOfTFCs                 INTEGER ::= 1024
maxNrOfRLs                  INTEGER ::= 16
maxNrOfRLs-1                INTEGER ::= 15  -- maxNrOfRLs – 1
maxNrOfRLs-2                INTEGER ::= 14  -- maxNrOfRLs – 2
maxNrOfRLSets               INTEGER ::= maxNrOfRLs
maxNrOfDPCHs                INTEGER ::= 240
maxNrOfDPCHsPerRL-1         INTEGER ::= 239 -- maxNrofCCTrCH*maxNrOfULTSs-1
```

```
maxNrOfDPCHLCRs             INTEGER ::= 240
maxNrOfDPCHsLCRPerRL-1      INTEGER ::= 95  -- maxNrofCCTrCH*maxNrOfULTSLCRs-1
maxNrOfSCCPCHs              INTEGER ::= 8
maxNrOfSCCPCHsinExt         INTEGER ::= 232
maxNrOfDCHs                 INTEGER ::= 128
maxNrOfDSCHs                INTEGER ::= 32
maxNrOfFACHs                INTEGER ::= 8
maxNrOfCCTrCHs              INTEGER ::= 16
maxNrOfPDSCHs               INTEGER ::= 256
maxNrOfHSPDSCHs             INTEGER ::= 16
maxNrOfPUSCHs               INTEGER ::= 256
maxNrOfPUSCHs-1             INTEGER ::= 255
maxNrOfPDSCHSets            INTEGER ::= 256
maxNrOfPRACHLCRs            INTEGER ::= 8
maxNrOfPUSCHSets            INTEGER ::= 256
maxNrOfSCCPCHLCRs           INTEGER ::= 8
maxNrOfSCCPCHsLCRinExt      INTEGER ::= 88
maxNrOfULTSs                INTEGER ::= 15
maxNrOfULTSLCRs             INTEGER ::= 6
maxNrOfUSCHs                INTEGER ::= 32
maxNrOfSlotFormatsPRACH     INTEGER ::= 8
maxCellinNodeB              INTEGER ::= 256
maxCCPinNodeB               INTEGER ::= 256
maxCTFC                     INTEGER ::= 16777215
maxLocalCellinNodeB         INTEGER ::= maxCellinNodeB
maxNoofLen                  INTEGER ::= 7
maxFPACHCell                INTEGER ::= 8
maxRACHCell                 INTEGER ::= maxPRACHCell
maxPRACHCell                INTEGER ::= 16
maxSCCPCHCell               INTEGER ::= 32
maxSCCPCHCellinExt          INTEGER ::= 208 -- maxNrOfSCCPCHs + maxNrOfSCCPCHsinExt - maxSCCPCHCell
maxSCCPCHCellinExtLCR       INTEGER ::= 64  -- maxNrOfSCCPCHLCRs + maxNrOfSCCPCHsLCRinExt - maxSCCPCHCell
maxSCPICHCell               INTEGER ::= 32
maxTTI-count                INTEGER ::= 4
maxIBSEG                    INTEGER ::= 16
maxIB                       INTEGER ::= 64
maxFACHCell                 INTEGER ::= 256 -- maxNrOfFACHs * maxSCCPCHCell
maxRateMatching             INTEGER ::= 256
maxHS-PDSCHCodeNrComp-1     INTEGER ::= 15
maxHS-SCCHCodeNrComp-1      INTEGER ::= 127
maxNrOfCellSyncBursts       INTEGER ::= 10
maxNrOfReceptsPerSyncFrame  INTEGER ::= 16
maxNrOfMeasNCell            INTEGER ::= 96
maxNrOfMeasNCell-1          INTEGER ::= 95  -- maxNrOfMeasNCell – 1
maxNrOfSF                   INTEGER ::= 8
maxTGPS                     INTEGER ::= 6
maxCommunicationContext     INTEGER ::= 1048575
maxNrOfLevels               INTEGER ::= 256
maxNoSat                    INTEGER ::= 16
maxNoGPSItems               INTEGER ::= 8
maxNrOfHSSCCHs              INTEGER ::= 32
maxNrOfHSSICHs              INTEGER ::= 4
maxNrOfHSSICHs-1            INTEGER ::= 3
maxNrOfSyncFramesLCR        INTEGER ::= 512
```

```
maxNrOfReceptionsperSyncFrameLCR    INTEGER ::= 8
maxNrOfSyncDLCodesLCR       INTEGER ::= 32
maxNrOfHSSCCHCodes              INTEGER ::= 4
maxNrOfMACdFlows                INTEGER ::= 8
maxNrOfMACdFlows-1              INTEGER ::= 7   -- maxNrOfMACdFlows - 1
maxNrOfMACdPDUIndexes           INTEGER ::= 8
maxNrOfMACdPDUIndexes-1         INTEGER ::= 7   -- maxNoOfMACdPDUIndexes – 1
maxNrOfMACdPDUSize              INTEGER ::= 32
maxNrOfNIs                      INTEGER ::= 256
maxNrOfPriorityQueues           INTEGER ::= 8
maxNrOfPriorityQueues-1         INTEGER ::= 7   -- maxNoOfPriorityQueues - 1
maxNrOfHARQProcesses            INTEGER ::= 8
maxNrOfContextsOnUeList         INTEGER ::= 16
maxNrOfCellPortionsPerCell      INTEGER ::= 64
maxNrOfCellPortionsPerCell-1    INTEGER ::= 63
maxNrOfPriorityClasses          INTEGER ::= 16
maxNrOfSatAlmanac-maxNoSat      INTEGER ::= 16  -- maxNrofSatAlmanac - maxNoSat
maxNrOfE-AGCHs                  INTEGER ::= 32
maxNrOfEDCHMACdFlows            INTEGER ::= 8
maxNrOfEDCHMACdFlows-1          INTEGER ::= 7
maxNrOfE-RGCHs-E-HICHs          INTEGER ::= 32
maxNrOfEDCH-HARQ-PO-QUANTSTEPs  INTEGER ::= 6
maxNrOfEDCHHARQProcesses2msEDCH INTEGER ::= 8
maxNrOfEDPCCH-PO-QUANTSTEPs     INTEGER ::= 8
maxNrOfBits-MACe-PDU-non-scheduled  INTEGER ::= 19982
maxNrOfRefETFCIs                INTEGER ::= 8
maxNrOfRefETFCI-PO-QUANTSTEPs   INTEGER ::= 29
maxNrofSigSeqRGHI-1             INTEGER ::= 39
maxNoOfLogicalChannels          INTEGER ::= 16
maxNrOfCombEDPDCH               INTEGER ::= 12

-- **************************************************************
--
-- IEs
--
-- **************************************************************

id-AICH-Information                                             ProtocolIE-ID ::= 0
id-AICH-InformationItem-ResourceStatusInd                       ProtocolIE-ID ::= 1
id-BCH-Information                                              ProtocolIE-ID ::= 7
id-BCH-InformationItem-ResourceStatusInd                        ProtocolIE-ID ::= 8
id-BCCH-ModificationTime                                        ProtocolIE-ID ::= 9
id-BlockingPriorityIndicator                                    ProtocolIE-ID ::= 10
id-Cause                                                        ProtocolIE-ID ::= 13
id-CCP-InformationItem-AuditRsp                                 ProtocolIE-ID ::= 14
id-CCP-InformationList-AuditRsp                                 ProtocolIE-ID ::= 15
id-CCP-InformationItem-ResourceStatusInd                        ProtocolIE-ID ::= 16
id-Cell-InformationItem-AuditRsp                                ProtocolIE-ID ::= 17
id-Cell-InformationItem-ResourceStatusInd                       ProtocolIE-ID ::= 18
id-Cell-InformationList-AuditRsp                                ProtocolIE-ID ::= 19
id-CellParameterID                                              ProtocolIE-ID ::= 23
id-CFN                                                          ProtocolIE-ID ::= 24
id-C-ID                                                         ProtocolIE-ID ::= 25
id-CommonMeasurementAccuracy                                    ProtocolIE-ID ::= 39
```

```
id-CommonMeasurementObjectType-CM-Rprt                    ProtocolIE-ID ::= 31
id-CommonMeasurementObjectType-CM-Rqst                    ProtocolIE-ID ::= 32
id-CommonMeasurementObjectType-CM-Rsp                     ProtocolIE-ID ::= 33
id-CommonMeasurementType                                  ProtocolIE-ID ::= 34
id-CommonPhysicalChannelID                                ProtocolIE-ID ::= 35
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD            ProtocolIE-ID ::= 36
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD            ProtocolIE-ID ::= 37
id-CommunicationControlPortID                             ProtocolIE-ID ::= 40
id-ConfigurationGenerationID                              ProtocolIE-ID ::= 43
id-CRNC-CommunicationContextID                            ProtocolIE-ID ::= 44
id-CriticalityDiagnostics                                 ProtocolIE-ID ::= 45
id-DCHs-to-Add-FDD                                        ProtocolIE-ID ::= 48
id-DCH-AddList-RL-ReconfPrepTDD                           ProtocolIE-ID ::= 49
id-DCHs-to-Add-TDD                                        ProtocolIE-ID ::= 50
id-DCH-DeleteList-RL-ReconfPrepFDD                        ProtocolIE-ID ::= 52
id-DCH-DeleteList-RL-ReconfPrepTDD                        ProtocolIE-ID ::= 53
id-DCH-DeleteList-RL-ReconfRqstFDD                        ProtocolIE-ID ::= 54
id-DCH-DeleteList-RL-ReconfRqstTDD                        ProtocolIE-ID ::= 55
id-DCH-FDD-Information                                    ProtocolIE-ID ::= 56
id-DCH-TDD-Information                                    ProtocolIE-ID ::= 57
id-DCH-InformationResponse                                ProtocolIE-ID ::= 59
id-FDD-DCHs-to-Modify                                     ProtocolIE-ID ::= 62
id-TDD-DCHs-to-Modify                                     ProtocolIE-ID ::= 63
id-DCH-ModifyList-RL-ReconfRqstTDD                        ProtocolIE-ID ::= 65
id-DCH-RearrangeList-Bearer-RearrangeInd                  ProtocolIE-ID ::= 135
id-DedicatedMeasurementObjectType-DM-Rprt                 ProtocolIE-ID ::= 67
id-DedicatedMeasurementObjectType-DM-Rqst                 ProtocolIE-ID ::= 68
id-DedicatedMeasurementObjectType-DM-Rsp                  ProtocolIE-ID ::= 69
id-DedicatedMeasurementType                               ProtocolIE-ID ::= 70
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD              ProtocolIE-ID ::= 72
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD           ProtocolIE-ID ::= 73
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD              ProtocolIE-ID ::= 76
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD             ProtocolIE-ID ::= 77
id-DL-DPCH-InformationList-RL-SetupRqstTDD                ProtocolIE-ID ::= 79
id-DL-DPCH-Information-RL-ReconfPrepFDD                   ProtocolIE-ID ::= 81
id-DL-DPCH-Information-RL-ReconfRqstFDD                   ProtocolIE-ID ::= 82
id-DL-DPCH-Information-RL-SetupRqstFDD                    ProtocolIE-ID ::= 83
id-DL-DPCH-TimingAdjustment                               ProtocolIE-ID ::= 21
id-DL-ReferencePowerInformationItem-DL-PC-Rqst            ProtocolIE-ID ::= 84
id-DLReferencePower                                       ProtocolIE-ID ::= 85
id-DLReferencePowerList-DL-PC-Rqst                        ProtocolIE-ID ::= 86
id-Unused-ProtocolIE-ID-87                                ProtocolIE-ID ::= 87
id-Unused-ProtocolIE-ID-89                                ProtocolIE-ID ::= 89
id-Unused-ProtocolIE-ID-91                                ProtocolIE-ID ::= 91
id-Unused-ProtocolIE-ID-93                                ProtocolIE-ID ::= 93
id-DSCHs-to-Add-TDD                                       ProtocolIE-ID ::= 96
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD           ProtocolIE-ID ::= 98
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD           ProtocolIE-ID ::= 100
id-DSCH-InformationResponse                               ProtocolIE-ID ::= 105
id-Unused-ProtocolIE-ID-106                               ProtocolIE-ID ::= 106
id-DSCH-TDD-Information                                   ProtocolIE-ID ::= 107
id-Unused-ProtocolIE-ID-108                               ProtocolIE-ID ::= 108
id-Unused-ProtocolIE-ID-112                               ProtocolIE-ID ::= 112
id-DSCH-RearrangeList-Bearer-RearrangeInd                 ProtocolIE-ID ::= 136
```

```
id-End-Of-Audit-Sequence-Indicator                          ProtocolIE-ID ::= 113
id-FACH-Information                                         ProtocolIE-ID ::= 116
id-FACH-InformationItem-ResourceStatusInd                   ProtocolIE-ID ::= 117
id-FACH-ParametersList-CTCH-ReconfRqstTDD                   ProtocolIE-ID ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD                  ProtocolIE-ID ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD                  ProtocolIE-ID ::= 122
id-IndicationType-ResourceStatusInd                         ProtocolIE-ID ::= 123
id-Local-Cell-ID                                            ProtocolIE-ID ::= 124
id-Local-Cell-Group-InformationItem-AuditRsp                ProtocolIE-ID ::= 2
id-Local-Cell-Group-InformationItem-ResourceStatusInd       ProtocolIE-ID ::= 3
id-Local-Cell-Group-InformationItem2-ResourceStatusInd      ProtocolIE-ID ::= 4
id-Local-Cell-Group-InformationList-AuditRsp                ProtocolIE-ID ::= 5
id-Local-Cell-InformationItem-AuditRsp                      ProtocolIE-ID ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd             ProtocolIE-ID ::= 126
id-Local-Cell-InformationItem2-ResourceStatusInd            ProtocolIE-ID ::= 127
id-Local-Cell-InformationList-AuditRsp                      ProtocolIE-ID ::= 128
id-AdjustmentPeriod                                         ProtocolIE-ID ::= 129
id-MaxAdjustmentStep                                        ProtocolIE-ID ::= 130
id-MaximumTransmissionPower                                 ProtocolIE-ID ::= 131
id-MeasurementFilterCoefficient                             ProtocolIE-ID ::= 132
id-MeasurementID                                            ProtocolIE-ID ::= 133
id-MessageStructure                                         ProtocolIE-ID ::= 115
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst          ProtocolIE-ID ::= 134
id-NodeB-CommunicationContextID                             ProtocolIE-ID ::= 143
id-NeighbouringCellMeasurementInformation                   ProtocolIE-ID ::= 455
id-P-CCPCH-Information                                      ProtocolIE-ID ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd                ProtocolIE-ID ::= 145
id-P-CPICH-Information                                      ProtocolIE-ID ::= 146
id-P-CPICH-InformationItem-ResourceStatusInd                ProtocolIE-ID ::= 147
id-P-SCH-Information                                        ProtocolIE-ID ::= 148
id-PCCPCH-Information-Cell-ReconfRqstTDD                    ProtocolIE-ID ::= 150
id-PCCPCH-Information-Cell-SetupRqstTDD                     ProtocolIE-ID ::= 151
id-PCH-Parameters-CTCH-ReconfRqstTDD                        ProtocolIE-ID ::= 155
id-PCH-ParametersItem-CTCH-SetupRqstFDD                     ProtocolIE-ID ::= 156
id-PCH-ParametersItem-CTCH-SetupRqstTDD                     ProtocolIE-ID ::= 157
id-PCH-Information                                          ProtocolIE-ID ::= 158
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst              ProtocolIE-ID ::= 161
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst           ProtocolIE-ID ::= 162
id-PDSCHSets-AddList-PSCH-ReconfRqst                        ProtocolIE-ID ::= 163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst                     ProtocolIE-ID ::= 164
id-PDSCHSets-ModifyList-PSCH-ReconfRqst                     ProtocolIE-ID ::= 165
id-PICH-Information                                         ProtocolIE-ID ::= 166
id-PICH-Parameters-CTCH-ReconfRqstTDD                       ProtocolIE-ID ::= 168
id-PowerAdjustmentType                                      ProtocolIE-ID ::= 169
id-PRACH-Information                                        ProtocolIE-ID ::= 170
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD              ProtocolIE-ID ::= 175
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD               ProtocolIE-ID ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD              ProtocolIE-ID ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD               ProtocolIE-ID ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD                ProtocolIE-ID ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD                 ProtocolIE-ID ::= 180
id-PrimaryScramblingCode                                    ProtocolIE-ID ::= 181
id-SCH-Information-Cell-ReconfRqstTDD                       ProtocolIE-ID ::= 183
id-SCH-Information-Cell-SetupRqstTDD                        ProtocolIE-ID ::= 184
```

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id-PUSCH-Information-AddListIE-PSCH-ReconfRqst                ProtocolIE-ID ::= 185
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst             ProtocolIE-ID ::= 186
id-PUSCHSets-AddList-PSCH-ReconfRqst                          ProtocolIE-ID ::= 187
id-PUSCHSets-DeleteList-PSCH-ReconfRqst                       ProtocolIE-ID ::= 188
id-PUSCHSets-ModifyList-PSCH-ReconfRqst                       ProtocolIE-ID ::= 189
id-RACH-Information                                           ProtocolIE-ID ::= 190
id-RACH-ParametersItem-CTCH-SetupRqstFDD                      ProtocolIE-ID ::= 196
id-RACH-ParameterItem-CTCH-SetupRqstTDD                       ProtocolIE-ID ::= 197
id-ReportCharacteristics                                      ProtocolIE-ID ::= 198
id-Reporting-Object-RL-FailureInd                             ProtocolIE-ID ::= 199
id-Reporting-Object-RL-RestoreInd                             ProtocolIE-ID ::= 200
id-RL-InformationItem-DM-Rprt                                 ProtocolIE-ID ::= 202
id-RL-InformationItem-DM-Rqst                                 ProtocolIE-ID ::= 203
id-RL-InformationItem-DM-Rsp                                  ProtocolIE-ID ::= 204
id-RL-InformationItem-RL-AdditionRqstFDD                      ProtocolIE-ID ::= 205
id-RL-informationItem-RL-DeletionRqst                         ProtocolIE-ID ::= 206
id-RL-InformationItem-RL-FailureInd                           ProtocolIE-ID ::= 207
id-RL-InformationItem-RL-PreemptRequiredInd                   ProtocolIE-ID ::= 286
id-RL-InformationItem-RL-ReconfPrepFDD                        ProtocolIE-ID ::= 208
id-RL-InformationItem-RL-ReconfRqstFDD                        ProtocolIE-ID ::= 209
id-RL-InformationItem-RL-RestoreInd                           ProtocolIE-ID ::= 210
id-RL-InformationItem-RL-SetupRqstFDD                         ProtocolIE-ID ::= 211
id-RL-InformationList-RL-AdditionRqstFDD                      ProtocolIE-ID ::= 212
id-RL-informationList-RL-DeletionRqst                         ProtocolIE-ID ::= 213
id-RL-InformationList-RL-PreemptRequiredInd                   ProtocolIE-ID ::= 237
id-RL-InformationList-RL-ReconfPrepFDD                        ProtocolIE-ID ::= 214
id-RL-InformationList-RL-ReconfRqstFDD                        ProtocolIE-ID ::= 215
id-RL-InformationList-RL-SetupRqstFDD                         ProtocolIE-ID ::= 216
id-RL-InformationResponseItem-RL-AdditionRspFDD               ProtocolIE-ID ::= 217
id-RL-InformationResponseItem-RL-ReconfReady                  ProtocolIE-ID ::= 218
id-RL-InformationResponseItem-RL-ReconfRsp                    ProtocolIE-ID ::= 219
id-RL-InformationResponseItem-RL-SetupRspFDD                  ProtocolIE-ID ::= 220
id-RL-InformationResponseList-RL-AdditionRspFDD               ProtocolIE-ID ::= 221
id-RL-InformationResponseList-RL-ReconfReady                  ProtocolIE-ID ::= 222
id-RL-InformationResponseList-RL-ReconfRsp                    ProtocolIE-ID ::= 223
id-RL-InformationResponseList-RL-SetupRspFDD                  ProtocolIE-ID ::= 224
id-RL-InformationResponse-RL-AdditionRspTDD                   ProtocolIE-ID ::= 225
id-RL-InformationResponse-RL-SetupRspTDD                      ProtocolIE-ID ::= 226
id-RL-Information-RL-AdditionRqstTDD                          ProtocolIE-ID ::= 227
id-RL-Information-RL-ReconfRqstTDD                            ProtocolIE-ID ::= 228
id-RL-Information-RL-ReconfPrepTDD                            ProtocolIE-ID ::= 229
id-RL-Information-RL-SetupRqstTDD                             ProtocolIE-ID ::= 230
id-RL-ReconfigurationFailureItem-RL-ReconfFailure             ProtocolIE-ID ::= 236
id-RL-Set-InformationItem-DM-Rprt                             ProtocolIE-ID ::= 238
id-RL-Set-InformationItem-DM-Rsp                              ProtocolIE-ID ::= 240
id-RL-Set-InformationItem-RL-FailureInd                       ProtocolIE-ID ::= 241
id-RL-Set-InformationItem-RL-RestoreInd                       ProtocolIE-ID ::= 242
id-S-CCPCH-Information                                        ProtocolIE-ID ::= 247
id-S-CPICH-Information                                        ProtocolIE-ID ::= 249
id-SCH-Information                                            ProtocolIE-ID ::= 251
id-S-SCH-Information                                          ProtocolIE-ID ::= 253
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD                   ProtocolIE-ID ::= 257
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD          ProtocolIE-ID ::= 258
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD              ProtocolIE-ID ::= 259
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id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD                ProtocolIE-ID ::= 260
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD                 ProtocolIE-ID ::= 261
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD                ProtocolIE-ID ::= 262
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD                 ProtocolIE-ID ::= 263
id-SecondarySCH-Information-Cell-ReconfRqstFDD                      ProtocolIE-ID ::= 264
id-SecondarySCH-Information-Cell-SetupRqstFDD                       ProtocolIE-ID ::= 265
id-SegmentInformationListIE-SystemInfoUpdate                        ProtocolIE-ID ::= 266
id-SFN                                                              ProtocolIE-ID ::= 268
id-SignallingBearerRequestIndicator                                 ProtocolIE-ID ::= 138
id-ShutdownTimer                                                    ProtocolIE-ID ::= 269
id-Start-Of-Audit-Sequence-Indicator                                ProtocolIE-ID ::= 114
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD          ProtocolIE-ID ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD             ProtocolIE-ID ::= 271
id-SyncCase                                                         ProtocolIE-ID ::= 274
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH                     ProtocolIE-ID ::= 275
id-T-Cell                                                           ProtocolIE-ID ::= 276
id-TargetCommunicationControlPortID                                 ProtocolIE-ID ::= 139
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD                     ProtocolIE-ID ::= 277
id-TimeSlotConfigurationList-Cell-SetupRqstTDD                      ProtocolIE-ID ::= 278
id-TransmissionDiversityApplied                                     ProtocolIE-ID ::= 279
id-TypeOfError                                                      ProtocolIE-ID ::= 508
id-UARFCNforNt                                                      ProtocolIE-ID ::= 280
id-UARFCNforNd                                                      ProtocolIE-ID ::= 281
id-UARFCNforNu                                                      ProtocolIE-ID ::= 282
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD                        ProtocolIE-ID ::= 284
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD                     ProtocolIE-ID ::= 285
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD                        ProtocolIE-ID ::= 288
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 289
id-UL-DPCH-InformationList-RL-SetupRqstTDD                          ProtocolIE-ID ::= 291
id-UL-DPCH-Information-RL-ReconfPrepFDD                             ProtocolIE-ID ::= 293
id-UL-DPCH-Information-RL-ReconfRqstFDD                             ProtocolIE-ID ::= 294
id-UL-DPCH-Information-RL-SetupRqstFDD                              ProtocolIE-ID ::= 295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD        ProtocolIE-ID ::= 296
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD           ProtocolIE-ID ::= 297
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD            ProtocolIE-ID ::= 300
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD               ProtocolIE-ID ::= 301
id-USCH-Information-Add                                             ProtocolIE-ID ::= 302
id-USCH-Information-DeleteList-RL-ReconfPrepTDD                     ProtocolIE-ID ::= 304
id-USCH-Information-ModifyList-RL-ReconfPrepTDD                     ProtocolIE-ID ::= 306
id-USCH-InformationResponse                                         ProtocolIE-ID ::= 309
id-USCH-Information                                                 ProtocolIE-ID ::= 310
id-USCH-RearrangeList-Bearer-RearrangeInd                           ProtocolIE-ID ::= 141
id-Active-Pattern-Sequence-Information                              ProtocolIE-ID ::= 315
id-AICH-ParametersListIE-CTCH-ReconfRqstFDD                         ProtocolIE-ID ::= 316
id-AdjustmentRatio                                                  ProtocolIE-ID ::= 317
id-Not-Used-320                                                     ProtocolIE-ID ::= 320
id-Not-Used-322                                                     ProtocolIE-ID ::= 322
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD                         ProtocolIE-ID ::= 323
id-CauseLevel-PSCH-ReconfFailure                                    ProtocolIE-ID ::= 324
id-CauseLevel-RL-AdditionFailureFDD                                 ProtocolIE-ID ::= 325
id-CauseLevel-RL-AdditionFailureTDD                                 ProtocolIE-ID ::= 326
id-CauseLevel-RL-ReconfFailure                                      ProtocolIE-ID ::= 327
id-CauseLevel-RL-SetupFailureFDD                                    ProtocolIE-ID ::= 328
id-CauseLevel-RL-SetupFailureTDD                                    ProtocolIE-ID ::= 329
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id-Not-Used-330                                          ProtocolIE-ID ::= 330
id-Not-Used-332                                          ProtocolIE-ID ::= 332
id-Closed-Loop-Timing-Adjustment-Mode                    ProtocolIE-ID ::= 333
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD          ProtocolIE-ID ::= 334
id-Compressed-Mode-Deactivation-Flag                     ProtocolIE-ID ::= 335
id-Not-Used-336                                          ProtocolIE-ID ::= 336
id-Not-Used-342                                          ProtocolIE-ID ::= 342
id-Not-Used-343                                          ProtocolIE-ID ::= 343
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD         ProtocolIE-ID ::= 346
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD      ProtocolIE-ID ::= 347
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD      ProtocolIE-ID ::= 348
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD      ProtocolIE-ID ::= 349
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD      ProtocolIE-ID ::= 350
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD      ProtocolIE-ID ::= 351
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD      ProtocolIE-ID ::= 352
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD         ProtocolIE-ID ::= 353
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD  ProtocolIE-ID ::= 355
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ProtocolIE-ID ::= 356
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD ProtocolIE-ID ::= 357
id-DL-TPC-Pattern01Count                                 ProtocolIE-ID ::= 358
id-DPC-Mode                                              ProtocolIE-ID ::= 450
id-DPCHConstant                                          ProtocolIE-ID ::= 359
id-Unused-ProtocolIE-ID-94                               ProtocolIE-ID ::= 94
id-Unused-ProtocolIE-ID-110                              ProtocolIE-ID ::= 110
id-Unused-ProtocolIE-ID-111                              ProtocolIE-ID ::= 111
id-FACH-ParametersList-CTCH-SetupRsp                     ProtocolIE-ID ::= 362
id-Limited-power-increase-information-Cell-SetupRqstFDD  ProtocolIE-ID ::= 369
id-PCH-Parameters-CTCH-SetupRsp                          ProtocolIE-ID ::= 374
id-PCH-ParametersItem-CTCH-ReconfRqstFDD                 ProtocolIE-ID ::= 375
id-Not-Used-376                                          ProtocolIE-ID ::= 376
id-PICH-ParametersItem-CTCH-ReconfRqstFDD                ProtocolIE-ID ::= 380
id-PRACHConstant                                         ProtocolIE-ID ::= 381
id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD             ProtocolIE-ID ::= 383
id-PUSCHConstant                                         ProtocolIE-ID ::= 384
id-RACH-Parameters-CTCH-SetupRsp                         ProtocolIE-ID ::= 385
id-Unused-ProtocolIE-ID-443                              ProtocolIE-ID ::= 443
id-Synchronisation-Configuration-Cell-ReconfRqst         ProtocolIE-ID ::= 393
id-Synchronisation-Configuration-Cell-SetupRqst          ProtocolIE-ID ::= 394
id-Transmission-Gap-Pattern-Sequence-Information         ProtocolIE-ID ::= 395
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD         ProtocolIE-ID ::= 396
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD      ProtocolIE-ID ::= 397
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD      ProtocolIE-ID ::= 398
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD      ProtocolIE-ID ::= 399
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD      ProtocolIE-ID ::= 400
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD      ProtocolIE-ID ::= 401
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD      ProtocolIE-ID ::= 402
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD         ProtocolIE-ID ::= 403
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD  ProtocolIE-ID ::= 405
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ProtocolIE-ID ::= 406
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD ProtocolIE-ID ::= 407
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD       ProtocolIE-ID ::= 408
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD       ProtocolIE-ID ::= 409
id-CommunicationContextInfoItem-Reset                    ProtocolIE-ID ::= 412
id-CommunicationControlPortInfoItem-Reset                ProtocolIE-ID ::= 414
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id-ResetIndicator                                                ProtocolIE-ID ::= 416
id-Unused-ProtocolIE-ID-417                                      ProtocolIE-ID ::= 417
id-Unused-ProtocolIE-ID-418                                      ProtocolIE-ID ::= 418
id-Unused-ProtocolIE-ID-419                                      ProtocolIE-ID ::= 419
id-Unused-ProtocolIE-ID-142                                      ProtocolIE-ID ::= 142
id-TimingAdvanceApplied                                          ProtocolIE-ID ::= 287
id-CFNReportingIndicator                                         ProtocolIE-ID ::= 6
id-SFNReportingIndicator                                         ProtocolIE-ID ::= 11
id-InnerLoopDLPCStatus                                           ProtocolIE-ID ::= 12
id-TimeslotISCPInfo                                              ProtocolIE-ID ::= 283
id-PICH-ParametersItem-CTCH-SetupRqstTDD                         ProtocolIE-ID ::= 167
id-PRACH-ParametersItem-CTCH-SetupRqstTDD                        ProtocolIE-ID ::= 20
id-CCTrCH-InformationItem-RL-FailureInd                          ProtocolIE-ID ::= 46
id-CCTrCH-InformationItem-RL-RestoreInd                          ProtocolIE-ID ::= 47
id-CauseLevel-SyncAdjustmntFailureTDD                            ProtocolIE-ID ::= 420
id-CellAdjustmentInfo-SyncAdjustmntRqstTDD                       ProtocolIE-ID ::= 421
id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD                  ProtocolIE-ID ::= 494
id-CellSyncBurstInfoList-CellSyncReconfRqstTDD                   ProtocolIE-ID ::= 482
id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD              ProtocolIE-ID ::= 422
id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD            ProtocolIE-ID ::= 423
id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD       ProtocolIE-ID ::= 424
id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD        ProtocolIE-ID ::= 425
id-CellSyncBurstTransInfoList-CellSyncReconfRqstTDD              ProtocolIE-ID ::= 426
id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD               ProtocolIE-ID ::= 427
id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD            ProtocolIE-ID ::= 428
id-CellSyncInfo-CellSyncReprtTDD                                 ProtocolIE-ID ::= 429
id-CSBTransmissionID                                             ProtocolIE-ID ::= 430
id-CSBMeasurementID                                              ProtocolIE-ID ::= 431
id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD                     ProtocolIE-ID ::= 432
id-NCyclesPerSFNperiod                                           ProtocolIE-ID ::= 433
id-NRepetitionsPerCyclePeriod                                    ProtocolIE-ID ::= 434
id-SyncFrameNumber                                               ProtocolIE-ID ::= 437
id-SynchronisationReportType                                     ProtocolIE-ID ::= 438
id-SynchronisationReportCharacteristics                          ProtocolIE-ID ::= 439
id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD ProtocolIE-ID ::= 440
id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD                 ProtocolIE-ID ::= 119
id-ReferenceClockAvailability                                    ProtocolIE-ID ::= 435
id-ReferenceSFNoffset                                            ProtocolIE-ID ::= 436
id-InformationExchangeID                                         ProtocolIE-ID ::= 444
id-InformationExchangeObjectType-InfEx-Rqst                      ProtocolIE-ID ::= 445
id-InformationType                                               ProtocolIE-ID ::= 446
id-InformationReportCharacteristics                              ProtocolIE-ID ::= 447
id-InformationExchangeObjectType-InfEx-Rsp                       ProtocolIE-ID ::= 448
id-InformationExchangeObjectType-InfEx-Rprt                      ProtocolIE-ID ::= 449
id-IPDLParameter-Information-Cell-ReconfRqstFDD                  ProtocolIE-ID ::= 451
id-IPDLParameter-Information-Cell-SetupRqstFDD                   ProtocolIE-ID ::= 452
id-IPDLParameter-Information-Cell-ReconfRqstTDD                  ProtocolIE-ID ::= 453
id-IPDLParameter-Information-Cell-SetupRqstTDD                   ProtocolIE-ID ::= 454
id-DL-DPCH-LCR-Information-RL-SetupRqstTDD                       ProtocolIE-ID ::= 74
id-DwPCH-LCR-Information                                         ProtocolIE-ID ::= 78
id-DwPCH-LCR-InformationList-AuditRsp                            ProtocolIE-ID ::= 90
id-DwPCH-LCR-Information-Cell-SetupRqstTDD                       ProtocolIE-ID ::= 97
id-DwPCH-LCR-Information-Cell-ReconfRqstTDD                      ProtocolIE-ID ::= 99
id-DwPCH-LCR-Information-ResourceStatusInd                       ProtocolIE-ID ::= 101
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id-maxFACH-Power-LCR-CTCH-SetupRqstTDD                              ProtocolIE-ID ::= 154
id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD                             ProtocolIE-ID ::= 174
id-FPACH-LCR-Information                                            ProtocolIE-ID ::= 290
id-FPACH-LCR-Information-AuditRsp                                   ProtocolIE-ID ::= 292
id-FPACH-LCR-InformationList-AuditRsp                               ProtocolIE-ID ::= 22
id-FPACH-LCR-InformationList-ResourceStatusInd                      ProtocolIE-ID ::= 311
id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD                           ProtocolIE-ID ::= 312
id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD                          ProtocolIE-ID ::= 314
id-PCCPCH-LCR-Information-Cell-SetupRqstTDD                         ProtocolIE-ID ::= 456
id-PCH-Power-LCR-CTCH-SetupRqstTDD                                  ProtocolIE-ID ::= 457
id-PCH-Power-LCR-CTCH-ReconfRqstTDD                                 ProtocolIE-ID ::= 458
id-PICH-LCR-Parameters-CTCH-SetupRqstTDD                            ProtocolIE-ID ::= 459
id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD                       ProtocolIE-ID ::= 461
id-RL-InformationResponse-LCR-RL-SetupRspTDD                        ProtocolIE-ID ::= 463
id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD              ProtocolIE-ID ::= 465
id-TimeSlot                                                         ProtocolIE-ID ::= 495
id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD                 ProtocolIE-ID ::= 466
id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD                  ProtocolIE-ID ::= 467
id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD                        ProtocolIE-ID ::= 468
id-TimeSlotLCR-CM-Rqst                                              ProtocolIE-ID ::= 469
id-UL-DPCH-LCR-Information-RL-SetupRqstTDD                          ProtocolIE-ID ::= 470
id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 472
id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 473
id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD              ProtocolIE-ID ::= 474
id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD                  ProtocolIE-ID ::= 475
id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD           ProtocolIE-ID ::= 477
id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD    ProtocolIE-ID ::= 479
id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD                           ProtocolIE-ID ::= 480
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD                ProtocolIE-ID ::= 481
id-UL-DPCH-LCR-InformationModify-AddList                            ProtocolIE-ID ::= 483
id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD                      ProtocolIE-ID ::= 485
id-UL-SIRTarget                                                     ProtocolIE-ID ::= 510
id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst                         ProtocolIE-ID ::= 486
id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst               ProtocolIE-ID ::= 487
id-Unused-ProtocolIE-ID-26                                          ProtocolIE-ID ::=  26
id-Unused-ProtocolIE-ID-27                                          ProtocolIE-ID ::=  27
id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst                      ProtocolIE-ID ::= 488
id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst         ProtocolIE-ID ::= 489
id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst                         ProtocolIE-ID ::= 490
id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst               ProtocolIE-ID ::= 491
id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst                      ProtocolIE-ID ::= 492
id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst         ProtocolIE-ID ::= 493
id-timeslotInfo-CellSyncInitiationRqstTDD                           ProtocolIE-ID ::= 496
id-SyncReportType-CellSyncReprtTDD                                  ProtocolIE-ID ::= 497
id-Power-Local-Cell-Group-InformationItem-AuditRsp                  ProtocolIE-ID ::= 498
id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd         ProtocolIE-ID ::= 499
id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd        ProtocolIE-ID ::= 500
id-Power-Local-Cell-Group-InformationList-AuditRsp                  ProtocolIE-ID ::= 501
id-Power-Local-Cell-Group-InformationList-ResourceStatusInd         ProtocolIE-ID ::= 502
id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd        ProtocolIE-ID ::= 503
id-Power-Local-Cell-Group-ID                                        ProtocolIE-ID ::= 504
id-PUSCH-Info-DM-Rqst                                               ProtocolIE-ID ::= 505
id-PUSCH-Info-DM-Rsp                                                ProtocolIE-ID ::= 506
id-PUSCH-Info-DM-Rprt                                               ProtocolIE-ID ::= 507
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id-InitDL-Power                                                  ProtocolIE-ID ::= 509
id-cellSyncBurstRepetitionPeriod                                 ProtocolIE-ID ::= 511
id-ReportCharacteristicsType-OnModification                      ProtocolIE-ID ::= 512
id-SFNSFNMeasurementValueInformation                             ProtocolIE-ID ::= 513
id-SFNSFNMeasurementThresholdInformation                         ProtocolIE-ID ::= 514
id-TUTRANGPSMeasurementValueInformation                          ProtocolIE-ID ::= 515
id-TUTRANGPSMeasurementThresholdInformation                      ProtocolIE-ID ::= 516
id-Rx-Timing-Deviation-Value-LCR                                 ProtocolIE-ID ::= 520
id-RL-InformationResponse-LCR-RL-AdditionRspTDD                  ProtocolIE-ID ::= 51
id-DL-PowerBalancing-Information                                 ProtocolIE-ID ::= 28
id-DL-PowerBalancing-ActivationIndicator                         ProtocolIE-ID ::= 29
id-DL-PowerBalancing-UpdatedIndicator                            ProtocolIE-ID ::= 30
id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD                       ProtocolIE-ID ::= 517
id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD                    ProtocolIE-ID ::= 518
id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD                      ProtocolIE-ID ::= 519
id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD               ProtocolIE-ID ::= 41
id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD              ProtocolIE-ID ::= 42
id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst ProtocolIE-ID ::= 522
id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst               ProtocolIE-ID ::= 523
id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst                 ProtocolIE-ID ::= 524
id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst                  ProtocolIE-ID ::= 525
id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst                      ProtocolIE-ID ::= 526
id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst                  ProtocolIE-ID ::= 527
id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst                  ProtocolIE-ID ::= 528
id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst             ProtocolIE-ID ::= 529
id-bindingID                                                     ProtocolIE-ID ::= 102
id-RL-Specific-DCH-Info                                          ProtocolIE-ID ::= 103
id-transportlayeraddress                                         ProtocolIE-ID ::= 104
id-DelayedActivation                                             ProtocolIE-ID ::= 231
id-DelayedActivationList-RL-ActivationCmdFDD                     ProtocolIE-ID ::= 232
id-DelayedActivationInformation-RL-ActivationCmdFDD              ProtocolIE-ID ::= 233
id-DelayedActivationList-RL-ActivationCmdTDD                     ProtocolIE-ID ::= 234
id-DelayedActivationInformation-RL-ActivationCmdTDD              ProtocolIE-ID ::= 235
id-neighbouringTDDCellMeasurementInformationLCR                  ProtocolIE-ID ::= 58
id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD           ProtocolIE-ID ::= 543
id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD         ProtocolIE-ID ::= 544
id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD          ProtocolIE-ID ::= 545
id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD      ProtocolIE-ID ::= 546
id-SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD                ProtocolIE-ID ::= 547
id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD                    ProtocolIE-ID ::= 548
id-SyncDLCodeIdThreInfoLCR                                       ProtocolIE-ID ::= 549
id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD                ProtocolIE-ID ::= 550
id-DwPCH-Power                                                   ProtocolIE-ID ::= 551
id-AccumulatedClockupdate-CellSyncReprtTDD                       ProtocolIE-ID ::= 552
id-Angle-Of-Arrival-Value-LCR                                    ProtocolIE-ID ::= 521
id-HSDSCH-FDD-Information                                        ProtocolIE-ID ::= 530
id-HSDSCH-FDD-Information-Response                               ProtocolIE-ID ::= 531
id-HSDSCH-Information-to-Modify                                  ProtocolIE-ID ::= 534
id-HSDSCH-RNTI                                                   ProtocolIE-ID ::= 535
id-HSDSCH-TDD-Information                                        ProtocolIE-ID ::= 536
id-HSDSCH-TDD-Information-Response                               ProtocolIE-ID ::= 537
id-HSPDSCH-RL-ID                                                 ProtocolIE-ID ::= 541
id-PrimCCPCH-RSCP-DL-PC-RqstTDD                                  ProtocolIE-ID ::= 542
id-Unused-ProtocolIE-ID-64                                       ProtocolIE-ID ::= 64
```

```
id-PDSCH-RL-ID                                                  ProtocolIE-ID ::= 66
id-HSDSCH-RearrangeList-Bearer-RearrangeInd                     ProtocolIE-ID ::= 553
id-UL-Synchronisation-Parameters-LCR                            ProtocolIE-ID ::= 554
id-HSDSCH-FDD-Update-Information                                ProtocolIE-ID ::= 555
id-HSDSCH-TDD-Update-Information                                ProtocolIE-ID ::= 556
id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD       ProtocolIE-ID ::= 558
id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD       ProtocolIE-ID ::= 559
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD                   ProtocolIE-ID ::= 560
id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD                ProtocolIE-ID ::= 561
id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD                  ProtocolIE-ID ::= 562
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD   ProtocolIE-ID ::= 563
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD ProtocolIE-ID ::= 564
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD  ProtocolIE-ID ::= 565
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD     ProtocolIE-ID ::= 566
id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD                      ProtocolIE-ID ::= 567
id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD                      ProtocolIE-ID ::= 568
id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 569
id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 570
id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD      ProtocolIE-ID ::= 571
id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD      ProtocolIE-ID ::= 572
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD   ProtocolIE-ID ::= 573
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD   ProtocolIE-ID ::= 574
id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD ProtocolIE-ID ::= 575
id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD ProtocolIE-ID ::= 576
id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD    ProtocolIE-ID ::= 577
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD   ProtocolIE-ID ::= 578
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD   ProtocolIE-ID ::= 579
id-Initial-DL-Power-TimeslotLCR-InformationItem                 ProtocolIE-ID ::= 580
id-Maximum-DL-Power-TimeslotLCR-InformationItem                 ProtocolIE-ID ::= 581
id-Minimum-DL-Power-TimeslotLCR-InformationItem                 ProtocolIE-ID ::= 582
id-HS-DSCHProvidedBitRateValueInformation                       ProtocolIE-ID ::= 583
id-HS-DSCHRequiredPowerValueInformation                         ProtocolIE-ID ::= 585
id-HS-DSCHRequiredPowerValue                                    ProtocolIE-ID ::= 586
id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission        ProtocolIE-ID ::= 587
id-HS-SICH-Reception-Quality                                    ProtocolIE-ID ::= 588
id-HS-SICH-Reception-Quality-Measurement-Value                  ProtocolIE-ID ::= 589
id-HSSICH-Info-DM-Rprt                                          ProtocolIE-ID ::= 590
id-HSSICH-Info-DM-Rqst                                          ProtocolIE-ID ::= 591
id-HSSICH-Info-DM-Rsp                                           ProtocolIE-ID ::= 592
id-Best-Cell-Portions-Value                                     ProtocolIE-ID ::= 593
id-Primary-CPICH-Usage-for-Channel-Estimation                   ProtocolIE-ID ::= 594
id-Secondary-CPICH-Information-Change                           ProtocolIE-ID ::= 595
id-NumberOfReportedCellPortions                                 ProtocolIE-ID ::= 596
id-CellPortion-InformationItem-Cell-SetupRqstFDD                ProtocolIE-ID ::= 597
id-CellPortion-InformationList-Cell-SetupRqstFDD                ProtocolIE-ID ::= 598
id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD                   ProtocolIE-ID ::= 599
id-Secondary-CPICH-Information                                  ProtocolIE-ID ::= 600
id-Received-total-wide-band-power-For-CellPortion               ProtocolIE-ID ::= 601
id-Unidirectional-DCH-Indicator                                 ProtocolIE-ID ::= 602
id-TimingAdjustmentValueLCR                                     ProtocolIE-ID ::= 603
id-multipleRL-dl-DPCH-InformationList                           ProtocolIE-ID ::= 604
id-multipleRL-dl-DPCH-InformationModifyList                     ProtocolIE-ID ::= 605
id-multipleRL-ul-DPCH-InformationList                           ProtocolIE-ID ::= 606
id-multipleRL-ul-DPCH-InformationModifyList                     ProtocolIE-ID ::= 607
```

```
id-RL-ID                                                            ProtocolIE-ID ::= 608
id-SAT-Info-Almanac-ExtItem                                         ProtocolIE-ID ::= 609
id-HSDPA-Capability                                                 ProtocolIE-ID ::= 610
id-HSDSCH-Resources-Information-AuditRsp                            ProtocolIE-ID ::= 611
id-HSDSCH-Resources-Information-ResourceStatusInd                   ProtocolIE-ID ::= 612
id-HSDSCH-MACdFlows-to-Add                                          ProtocolIE-ID ::= 613
id-HSDSCH-MACdFlows-to-Delete                                       ProtocolIE-ID ::= 614
id-HSDSCH-Information-to-Modify-Unsynchronised                      ProtocolIE-ID ::= 615
id-TnlQos                                                           ProtocolIE-ID ::= 616
id-Received-total-wide-band-power-For-CellPortion-Value             ProtocolIE-ID ::= 617
id-Transmitted-Carrier-Power-For-CellPortion                        ProtocolIE-ID ::= 618
id-Transmitted-Carrier-Power-For-CellPortion-Value                  ProtocolIE-ID ::= 619
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion          ProtocolIE-ID ::= 620
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue   ProtocolIE-ID ::= 621
id-UpPTSInterferenceValue                                           ProtocolIE-ID ::= 622
id-PrimaryCCPCH-RSCP-Delta                                          ProtocolIE-ID ::= 623
id-MeasurementRecoveryBehavior                                      ProtocolIE-ID ::= 624
id-MeasurementRecoveryReportingIndicator                            ProtocolIE-ID ::= 625
id-MeasurementRecoverySupportIndicator                              ProtocolIE-ID ::= 626
id-Tstd-indicator                                                   ProtocolIE-ID ::= 627
id-multiple-RL-Information-RL-ReconfPrepTDD                         ProtocolIE-ID ::= 628
id-multiple-RL-Information-RL-ReconfRqstTDD                         ProtocolIE-ID ::= 629
id-DL-DPCH-Power-Information-RL-ReconfPrepFDD                       ProtocolIE-ID ::= 630
id-F-DPCH-Information-RL-ReconfPrepFDD                              ProtocolIE-ID ::= 631
id-F-DPCH-Information-RL-SetupRqstFDD                               ProtocolIE-ID ::= 632
id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD                 ProtocolIE-ID ::= 633
id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD                  ProtocolIE-ID ::= 634
id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD             ProtocolIE-ID ::= 635
id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD              ProtocolIE-ID ::= 636
id-MICH-CFN                                                         ProtocolIE-ID ::= 637
id-MICH-Information-AuditRsp                                        ProtocolIE-ID ::= 638
id-MICH-Information-ResourceStatusInd                               ProtocolIE-ID ::= 639
id-MICH-Parameters-CTCH-ReconfRqstFDD                               ProtocolIE-ID ::= 640
id-MICH-Parameters-CTCH-ReconfRqstTDD                               ProtocolIE-ID ::= 641
id-MICH-Parameters-CTCH-SetupRqstFDD                                ProtocolIE-ID ::= 642
id-MICH-Parameters-CTCH-SetupRqstTDD                                ProtocolIE-ID ::= 643
id-Modification-Period                                              ProtocolIE-ID ::= 644
id-NI-Information-NotifUpdateCmd                                    ProtocolIE-ID ::= 645
id-S-CCPCH-InformationListExt-AuditRsp                              ProtocolIE-ID ::= 646
id-S-CCPCH-InformationListExt-ResourceStatusInd                     ProtocolIE-ID ::= 647
id-S-CCPCH-LCR-InformationListExt-AuditRsp                          ProtocolIE-ID ::= 648
id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd                 ProtocolIE-ID ::= 649
id-HARQ-Preamble-Mode                                               ProtocolIE-ID ::= 650
id-Initial-DL-DPCH-TimingAdjustment                                 ProtocolIE-ID ::= 651
id-Initial-DL-DPCH-TimingAdjustment-Allowed                         ProtocolIE-ID ::= 652
id-DLTransmissionBranchLoadValue                                    ProtocolIE-ID ::= 653
id-Power-Local-Cell-Group-choice-CM-Rqst                            ProtocolIE-ID ::= 654
id-Power-Local-Cell-Group-choice-CM-Rsp                             ProtocolIE-ID ::= 655
id-Power-Local-Cell-Group-choice-CM-Rprt                            ProtocolIE-ID ::= 656
id-SynchronisationIndicator                                         ProtocolIE-ID ::= 657
id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst           ProtocolIE-ID ::= 658
id-Unused-ProtocolIE-ID-659                                         ProtocolIE-ID ::= 659
id-HS-DSCHRequiredPowerValue-For-Cell-Portion                       ProtocolIE-ID ::= 660
id-HS-DSCHRequiredPowerValueInformation-For-CellPortion             ProtocolIE-ID ::= 661
```

```
id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion          ProtocolIE-ID ::= 662
id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code                    ProtocolIE-ID ::= 663
id-E-AGCH-FDD-Code-Information                                     ProtocolIE-ID ::= 664
id-E-DCH-Capability                                                ProtocolIE-ID ::= 665
id-E-DCH-FDD-DL-Control-Channel-Information                        ProtocolIE-ID ::= 666
id-E-DCH-FDD-Information                                           ProtocolIE-ID ::= 667
id-E-DCH-FDD-Information-Response                                  ProtocolIE-ID ::= 668
id-E-DCH-FDD-Information-to-Modify                                 ProtocolIE-ID ::= 669
id-E-DCH-MACdFlows-to-Add                                          ProtocolIE-ID ::= 670
id-E-DCH-MACdFlows-to-Delete                                       ProtocolIE-ID ::= 671
id-E-DCH-Resources-Information-AuditRsp                            ProtocolIE-ID ::= 672
id-E-DCH-Resources-Information-ResourceStatusInd                   ProtocolIE-ID ::= 673
id-E-DCH-RL-Indication                                             ProtocolIE-ID ::= 674
id-E-DCH-RL-Set-ID                                                 ProtocolIE-ID ::= 675
id-E-DPCH-Information-RL-ReconfPrepFDD                             ProtocolIE-ID ::= 676
id-E-DPCH-Information-RL-SetupRqstFDD                              ProtocolIE-ID ::= 677
id-E-RGCH-E-HICH-FDD-Code-Information                              ProtocolIE-ID ::= 678
id-Serving-E-DCH-RL-ID                                             ProtocolIE-ID ::= 679
id-UL-DPDCH-Indicator-For-E-DCH-Operation                          ProtocolIE-ID ::= 680
id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD                       ProtocolIE-ID ::= 681
id-E-DPCH-Information-RL-ReconfRqstFDD                             ProtocolIE-ID ::= 682
id-Maximum-Target-ReceivedTotalWideBandPower                       ProtocolIE-ID ::= 683
id-E-DCHProvidedBitRateValueInformation                            ProtocolIE-ID ::= 684
id-HARQ-Preamble-Mode-Activation-Indicator                         ProtocolIE-ID ::= 685
id-RL-Specific-E-DCH-Info                                          ProtocolIE-ID ::= 686
id-E-DCH-CapacityConsumptionLaw                                    ProtocolIE-ID ::= 687
id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp               ProtocolIE-ID ::= 688
id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp           ProtocolIE-ID ::= 689
id-E-DCH-RearrangeList-Bearer-RearrangeInd                         ProtocolIE-ID ::= 690
id-Unused-ProtocolIE-ID-691                                        ProtocolIE-ID ::= 691
id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD     ProtocolIE-ID ::= 692
id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio                ProtocolIE-ID ::= 693
id-CellPortion-InformationItem-Cell-ReconfRqstFDD                  ProtocolIE-ID ::= 694
id-CellPortion-InformationList-Cell-ReconfRqstFDD                  ProtocolIE-ID ::= 695
id-multiple-PUSCH-InfoList-DM-Rsp                                  ProtocolIE-ID ::= 696
id-multiple-PUSCH-InfoList-DM-Rprt                                 ProtocolIE-ID ::= 697
id-Reference-ReceivedTotalWideBandPower                            ProtocolIE-ID ::= 698
id-E-DCH-Serving-Cell-Change-Info-Response                         ProtocolIE-ID ::= 699
id-HS-DSCH-Serving-Cell-Change-Info                                ProtocolIE-ID ::= 700
id-HS-DSCH-Serving-Cell-Change-Info-Response                       ProtocolIE-ID ::= 701
id-Serving-Cell-Change-CFN                                         ProtocolIE-ID ::= 702
id-E-DCH-HARQ-Combining-Capability                                 ProtocolIE-ID ::= 703
id-E-DCH-TTI2ms-Capability                                         ProtocolIE-ID ::= 704
id-E-DCH-SF-Capability                                             ProtocolIE-ID ::= 705
id-E-DCH-FDD-Update-Information                                    ProtocolIE-ID ::= 706
id-F-DPCH-Capability                                               ProtocolIE-ID ::= 707
id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue              ProtocolIE-ID ::= 708
id-HSSICH-SIRTarget                                                ProtocolIE-ID ::= 709
id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp                  ProtocolIE-ID ::= 710
id-E-DPCH-Information-RL-AdditionReqFDD                            ProtocolIE-ID ::= 772
id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR                       ProtocolIE-ID ::= 775
id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR                       ProtocolIE-ID ::= 780
id-HSDSCH-Configured-Indicator                                     ProtocolIE-ID ::= 783
id-tFCI-Presence                                                   ProtocolIE-ID ::= 793
```

```
id-HSSICH-TPC-StepSize                                  ProtocolIE-ID ::= 794
id-DCH-Indicator-For-E-DCH-HSDPA-Operation              ProtocolIE-ID ::= 822
id-ueCapability-Info                                    ProtocolIE-ID ::= 825


END
```

## 9.3.7 Container Definitions

```
-- **************************************************************
--
-- Container definitions
--
-- **************************************************************

NBAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Containers (5) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    maxProtocolExtensions,
    maxPrivateIEs,
    maxProtocolIEs,
    Criticality,
    Presence,
    PrivateIE-ID,
    ProtocolIE-ID
FROM NBAP-CommonDataTypes;

-- **************************************************************
--
-- Class Definition for Protocol IEs
--
-- **************************************************************

NBAP-PROTOCOL-IES ::= CLASS {
    &id     ProtocolIE-ID           UNIQUE,
    &criticality    Criticality,
    &Value,
    &presence   Presence
}
WITH SYNTAX {
    ID      &id
```

```
    CRITICALITY &criticality
    TYPE        &Value
    PRESENCE    &presence
}

-- **************************************************************
--
-- Class Definition for Protocol IEs
--
-- **************************************************************

NBAP-PROTOCOL-IES-PAIR ::= CLASS {
    &id         ProtocolIE-ID           UNIQUE,
    &firstCriticality   Criticality,
    &FirstValue,
    &secondCriticality  Criticality,
    &SecondValue,
    &presence       Presence
}
WITH SYNTAX {
    ID          &id
    FIRST CRITICALITY   &firstCriticality
    FIRST TYPE      &FirstValue
    SECOND CRITICALITY  &secondCriticality
    SECOND TYPE     &SecondValue
    PRESENCE        &presence
}

-- **************************************************************
--
-- Class Definition for Protocol Extensions
--
-- **************************************************************

NBAP-PROTOCOL-EXTENSION ::= CLASS {
    &id     ProtocolIE-ID       UNIQUE,
    &criticality    Criticality,
    &Extension,
    &presence       Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    EXTENSION   &Extension
    PRESENCE    &presence
}

-- **************************************************************
--
-- Class Definition for Private IEs
--
-- **************************************************************

NBAP-PRIVATE-IES ::= CLASS {
```

```
    &id     PrivateIE-ID,
    &criticality    Criticality,
    &Value,
    &presence       Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    TYPE    &Value
    PRESENCE    &presence
}

-- **************************************************************
--
-- Container for Protocol IEs
--
-- **************************************************************

ProtocolIE-Container {NBAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Single-Container {NBAP-PROTOCOL-IES : IEsSetParam} ::=
    ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Field {NBAP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {
    id      NBAP-PROTOCOL-IES.&id       ({IEsSetParam}),
    criticality     NBAP-PROTOCOL-IES.&criticality  ({IEsSetParam}{@id}),
    value       NBAP-PROTOCOL-IES.&Value     ({IEsSetParam}{@id})
}

-- **************************************************************
--
-- Container for Protocol IE Pairs
--
-- **************************************************************

ProtocolIE-ContainerPair {NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-FieldPair {{IEsSetParam}}

ProtocolIE-FieldPair {NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::= SEQUENCE {
    id              NBAP-PROTOCOL-IES-PAIR.&id          ({IEsSetParam}),
    firstCriticality        NBAP-PROTOCOL-IES-PAIR.&firstCriticality    ({IEsSetParam}{@id}),
    firstValue          NBAP-PROTOCOL-IES-PAIR.&FirstValue  ({IEsSetParam}{@id}),
    secondCriticality       NBAP-PROTOCOL-IES-PAIR.&secondCriticality   ({IEsSetParam}{@id}),
    secondValue         NBAP-PROTOCOL-IES-PAIR.&SecondValue ({IEsSetParam}{@id})
}

-- **************************************************************
--
-- Container Lists for Protocol IE Containers
--
-- **************************************************************
```

```
ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-Container {{IEsSetParam}}

ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-ContainerPair {{IEsSetParam}}

-- **************************************************************
--
-- Container for Protocol Extensions
--
-- **************************************************************

ProtocolExtensionContainer {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
    SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
    ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
    id      NBAP-PROTOCOL-EXTENSION.&id ({ExtensionSetParam}),
    criticality NBAP-PROTOCOL-EXTENSION.&criticality    ({ExtensionSetParam}{@id}),
    extensionValue  NBAP-PROTOCOL-EXTENSION.&Extension  ({ExtensionSetParam}{@id})
}

-- **************************************************************
--
-- Container for Private IEs
--
-- **************************************************************

PrivateIE-Container {NBAP-PRIVATE-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (1..maxPrivateIEs)) OF
    PrivateIE-Field {{IEsSetParam}}

PrivateIE-Field {NBAP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {
    id          NBAP-PRIVATE-IES.&id
    ({IEsSetParam}),
    criticality         NBAP-PRIVATE-IES.&criticality
    ({IEsSetParam}{@id}),
    value       NBAP-PRIVATE-IES.&Value
    ({IEsSetParam}{@id})
}

END
```

## 9.4 Message Transfer Syntax

NBAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [11].

## 9.5 Timers

$T_{Preempt}$

- Specifies the maximum time that a Node B may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

# 10 Handling of Unknown, Unforeseen and Erroneous Protocol Data

## 10.1 General

Protocol Error cases can be divided into three classes:

- Transfer Syntax Error
- Abstract Syntax Error
- Logical Error

Protocol errors can occur in the following functions within a receiving node:

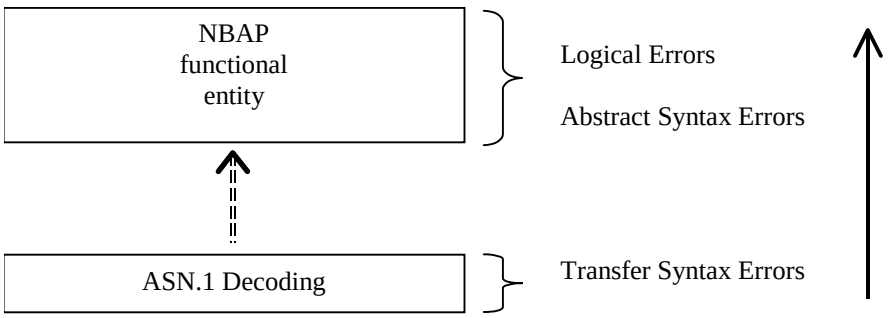



**Figure 38: Protocol Errors in NBAP.**

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

## 10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error.

- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, than this case will be handled as a transfer syntax error.
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

# 10.3 Abstract Syntax Error

## 10.3.1 General

An Abstract Syntax Error occurs when the receiving functional NBAP entity:

1. receives IEs or IE groups that cannot be understood (unknown id);
2. receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
3. does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;
4. receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;
5. receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

## 10.3.2 Criticality Information

In the NBAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

- Reject IE
- Ignore IE and Notify Sender
- Ignore IE

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by the receiving entity (some may still remain unsupported).

2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

## 10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, NBAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field of the concerned object of class NBAP-PROTOCOL-IES, NBAP-PROTOCOL-IES-PAIR, NBAP-PROTOCOL-EXTENSION or NBAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

1. Optional;
2. Conditional;
3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

## 10.3.4 Not comprehended IE/IE group

### 10.3.4.1 Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

**Reject IE:**

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

**Ignore IE and Notify Sender:**

- If a message is received with a *Procedure ID* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

**Ignore IE:**

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

### 10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

### 10.3.4.2 IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* IE and *Type of Message* IE according to the following:

**Reject IE:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*" that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

**Ignore IE and Notify Sender:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

**Ignore IE:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be

included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

### 10.3.5 Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

**Reject IE:**

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

**Ignore IE and Notify Sender:**

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

**Ignore IE:**

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be

included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

### 10.3.6 IEs or IE Groups Received in Wrong Order or With Too Many Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".

- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

## 10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality of the IEs/IE groups containing the erroneous values.

**Class 1:**

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value.

Typical cause values are:

- Protocol Causes:

  1. Semantic Error

  2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

**Class 2:**

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering*

*Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

## 10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclause of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.

- In case a response message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

- If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality 'ignore and notify' have earlier occurred within the same procedure.

# Annex A (normative): Allocation and Pre-emption of Radio Links in the Node B

## A.1 Deriving Allocation Information for a Radio Link

### A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B or
b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:

  - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.

  - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.

  - If all non-excluded transport channels that are intended to use a Radio Link to be established have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
    If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

### A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B,
b) a previous procedure adding or modifying the transport channel, or
c) the current procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:

  - The transport channels to be added or modified that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.

  - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.

  - If all non-excluded transport channels that are to be added or modified in the Radio Link have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
    If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

# A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B or
b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:

  - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.

  - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".
    If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

# A.3 The Allocation/Retention Process

The Node B shall establish or modify the resources for a Radio Link according to:

- The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio Link to be established or modified. The Allocation Information is derived according to clause A.1.
- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.
- The resource situation in the cell.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

-. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger pre-emption" and the resource situation so requires, the Node B may trigger the pre-emption process in clause A.4 to free resources for this allocation request.

-. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.

-. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.

-. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

# A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the Node B shall initiate the Radio Link Pre-emption procedure for all the Node B Communication Contexts having Radio Links selected for pre-emption and start the $T_{Preempt}$ timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the Node B shall stop the $T_{Preempt}$ timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the $T_{Preempt}$ timer expires, the Node B shall regard the procedure that triggered the pre-emption process as failed and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

# Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

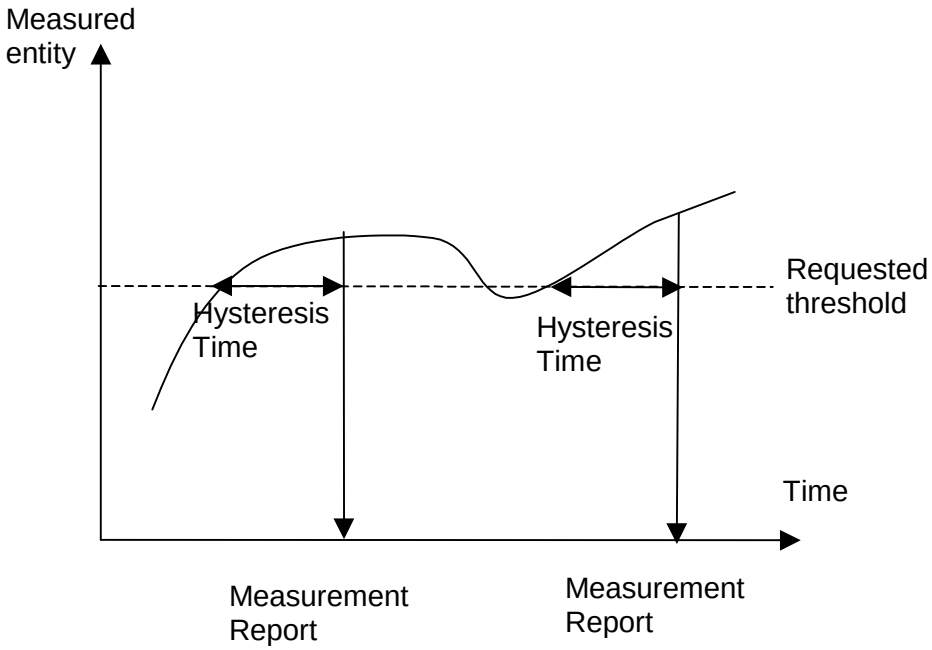



**Figure B.1: Event A reporting with Hysteresis Time specified**

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

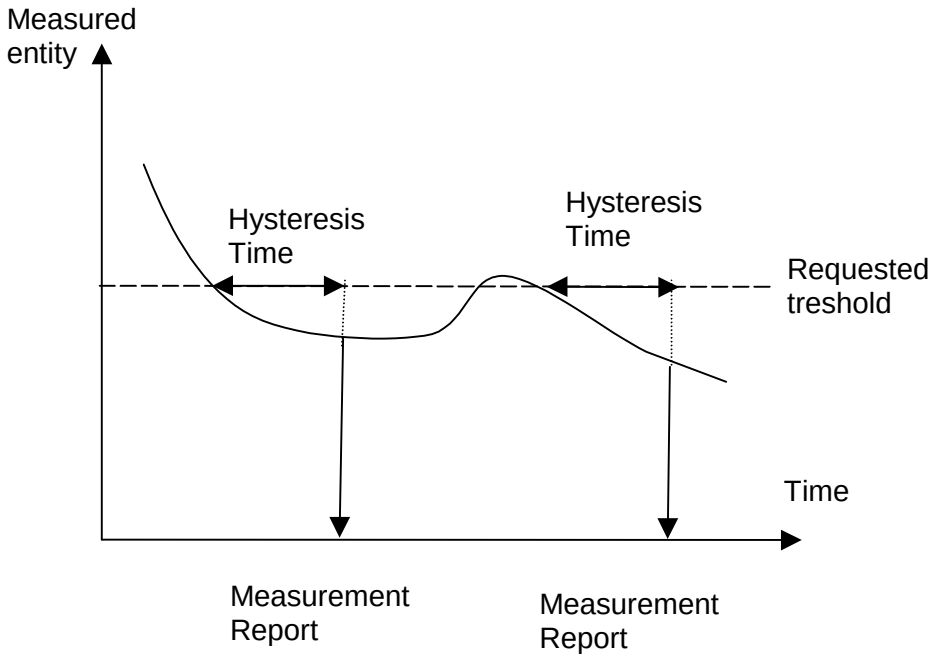



**Figure B.2: Event B reporting with Hysteresis Time specified**

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

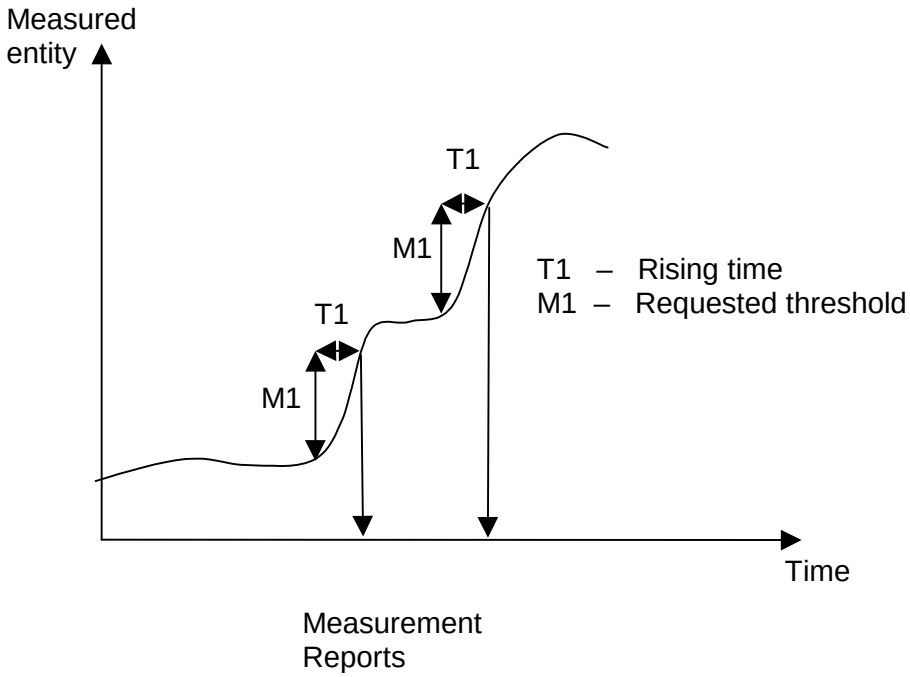



**Figure B.3: Event C reporting**

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

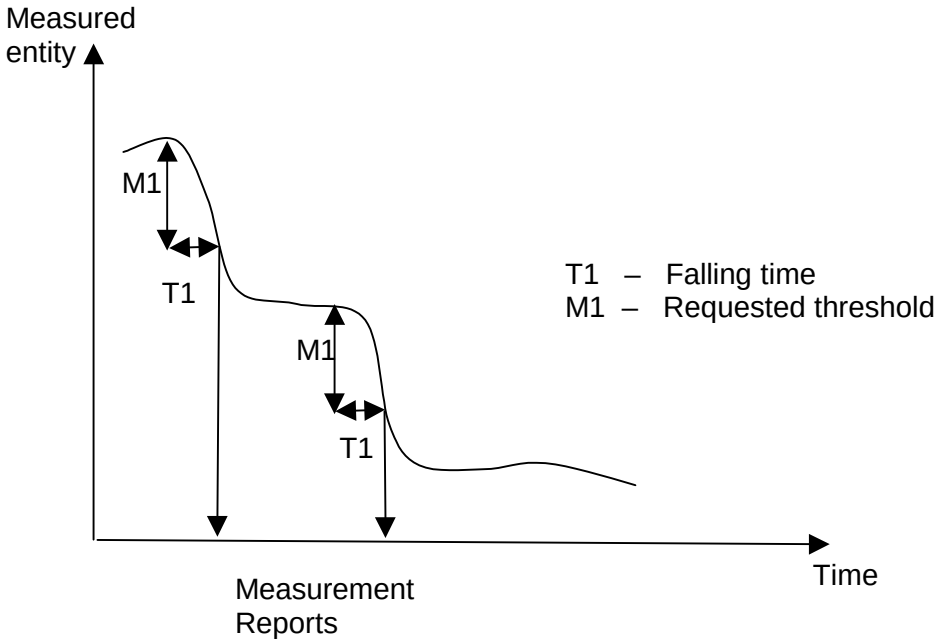



**Figure B.4: Event D reporting**

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

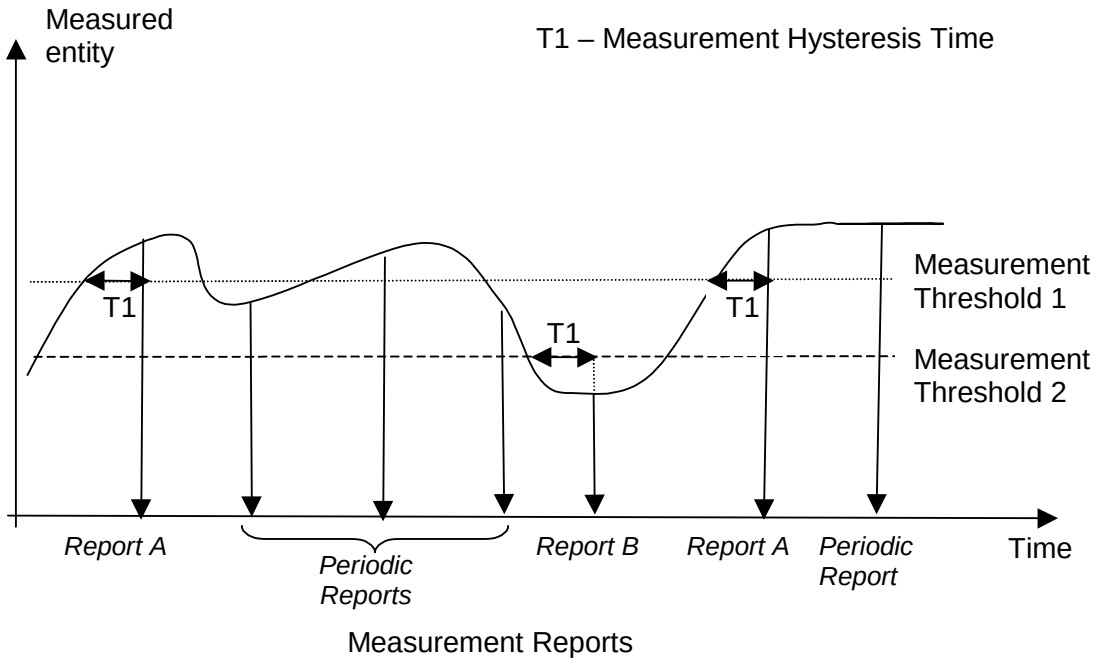



**Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested**

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

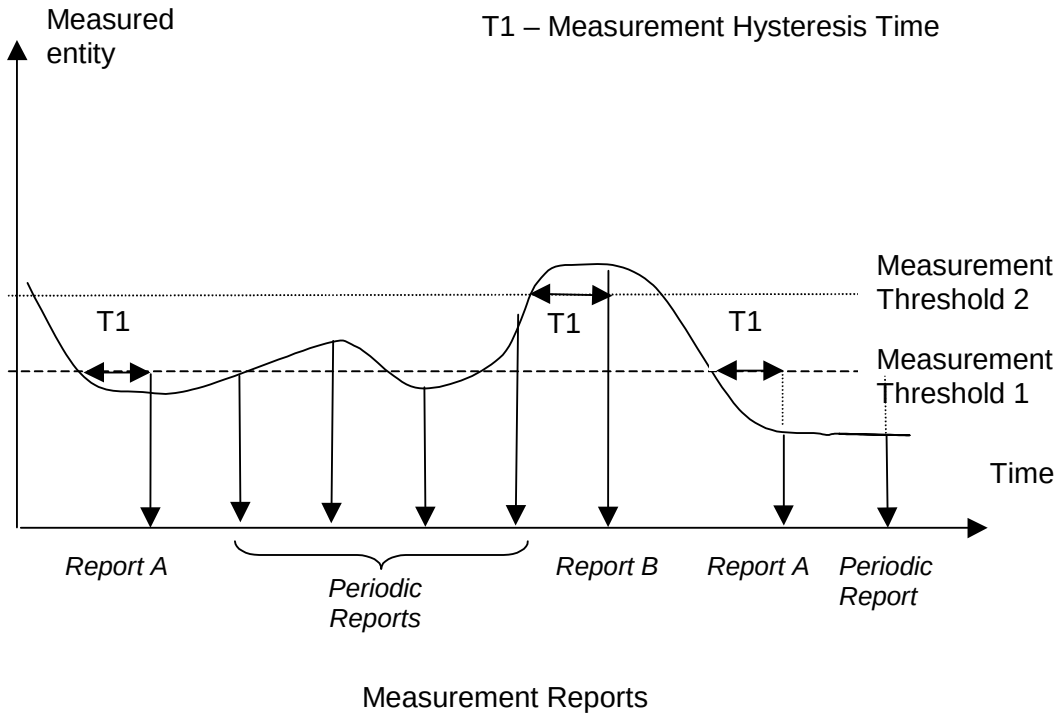



**Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested**

# Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

## C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | | | YES | reject |
| Transaction ID | M | | | | – | |
| A | M | | | | YES | reject |
| **B** | M | | | | YES | reject |
| **>E** | | *1..<maxE>* | | | EACH | ignore |
| **>>F** | | *1..<maxF>* | | | – | |
| >>>G | | *0..3, …* | | | EACH | ignore |
| **>>H** | | *1..<maxH>* | | | EACH | ignore |
| >>>G | | *0..3, …* | | | EACH | ignore and notify |
| >>G | M | | | | YES | reject |
| **>>J** | | *1..<maxJ>* | | | – | |
| >>>G | | *0..3, …* | | | EACH | reject |
| **C** | M | | | | YES | reject |
| **>K** | | *1..<maxK>* | | | EACH | ignore and notify |
| **>>L** | | *1..<maxL>* | | | – | |
| >>>M | O | | | | – | |
| D | M | | | | YES | reject |

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

# C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

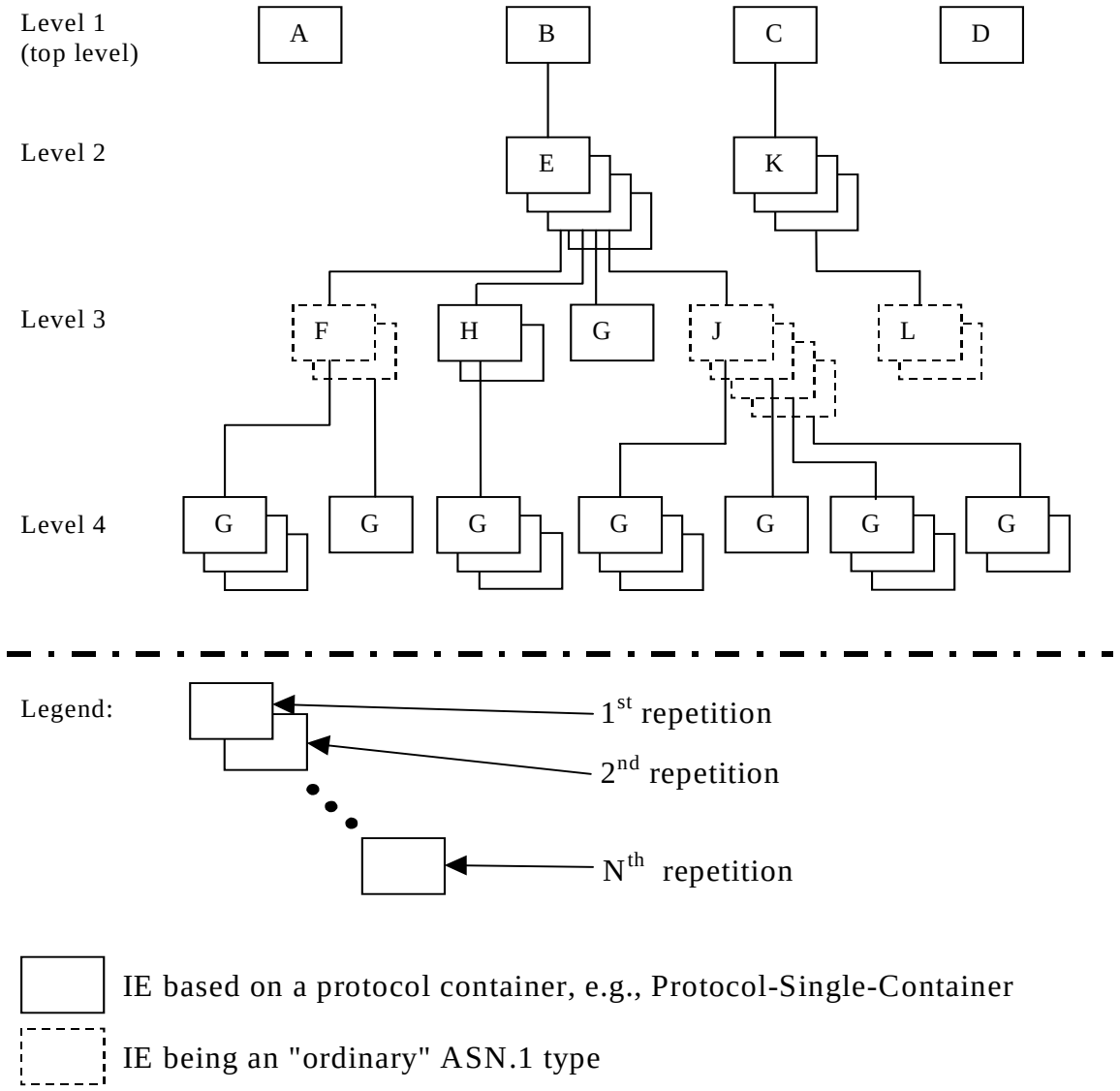



**Figure C.1: Example of content of a received NBAP message based on the EXAMPLE MESSAGE**

# C.3 Content of Criticality Diagnostics

## C.3.1 Example 1

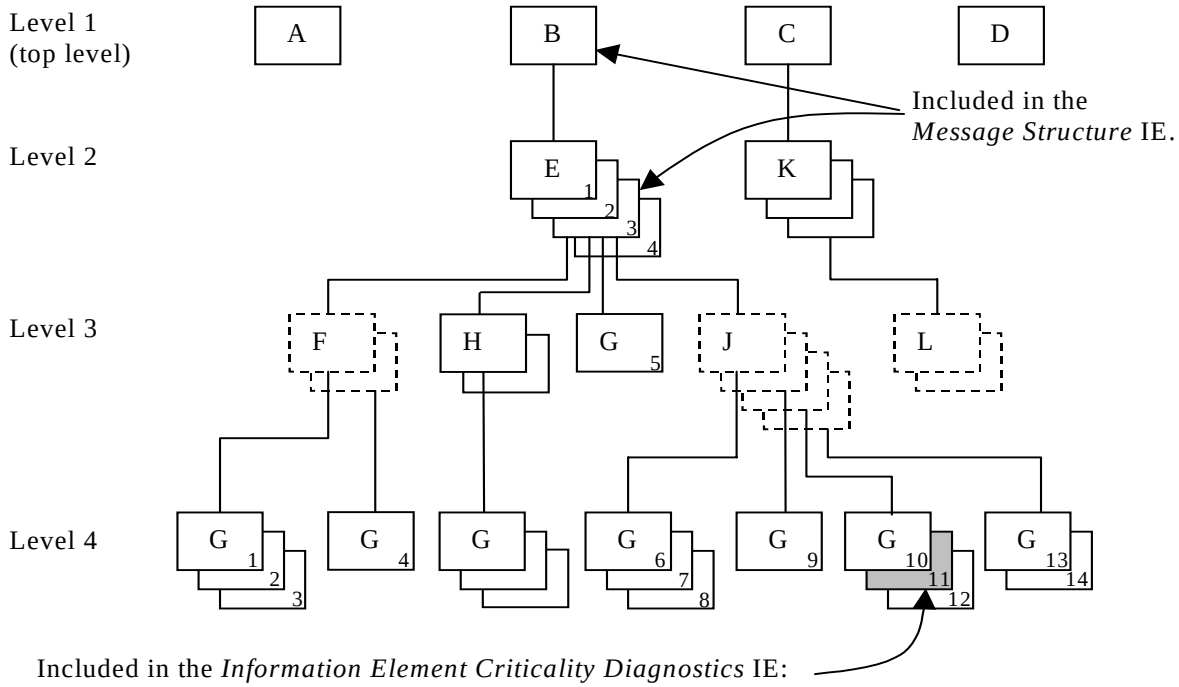



**Figure C.2: Example of a received NBAP message containing a not comprehended IE**

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 4. |
| IE ID | id-G | IE ID from the reported level, i.e. level 4. |
| Repetition Number | 11 | Repetition number on the reported level, i.e. level 4.<br>(Since the IE E (level 2) is the lowest level included in the *Message Structure* IE this is the eleventh occurrence of IE G within the IE E (level 2). |
| Type of Error | not understood | |
| Message Structure, *first repetition* | | |
| >IE ID | id-B | IE ID from level 1. |
| Message Structure, *second repetition* | | |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition Number | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |

Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.

Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

## C.3.2 Example 2

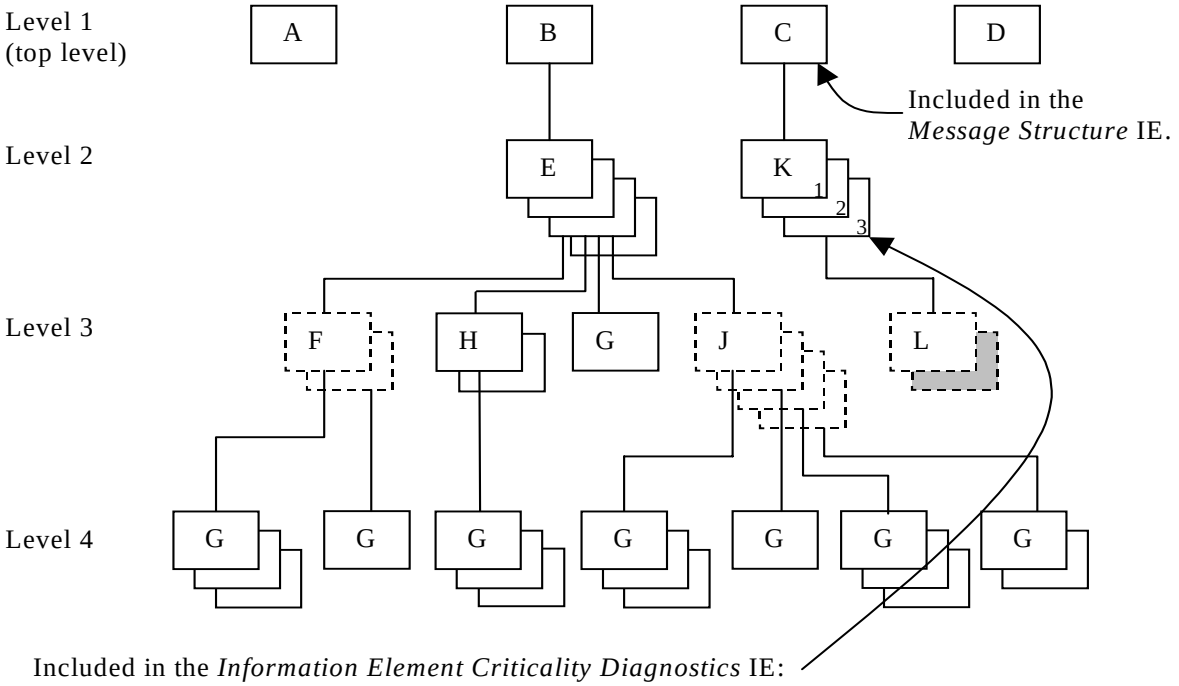



**Figure C.3: Example of a received NBAP message containing a not comprehended IE**

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | ignore and notify | Criticality for IE on the reported level, i.e. level 2. |
| IE ID | id-K | IE ID from the reported level, i.e. level 2. |
| Repetition Number | 3 | Repetition number on the reported level, i.e. level 2. |
| Type of Error | not understood | |
| Message Structure, *first repetition* | | |
| >IE ID | id-C | IE ID from the lowest level above the reported level, i.e. level 1. |

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

## C.3.3 Example 3

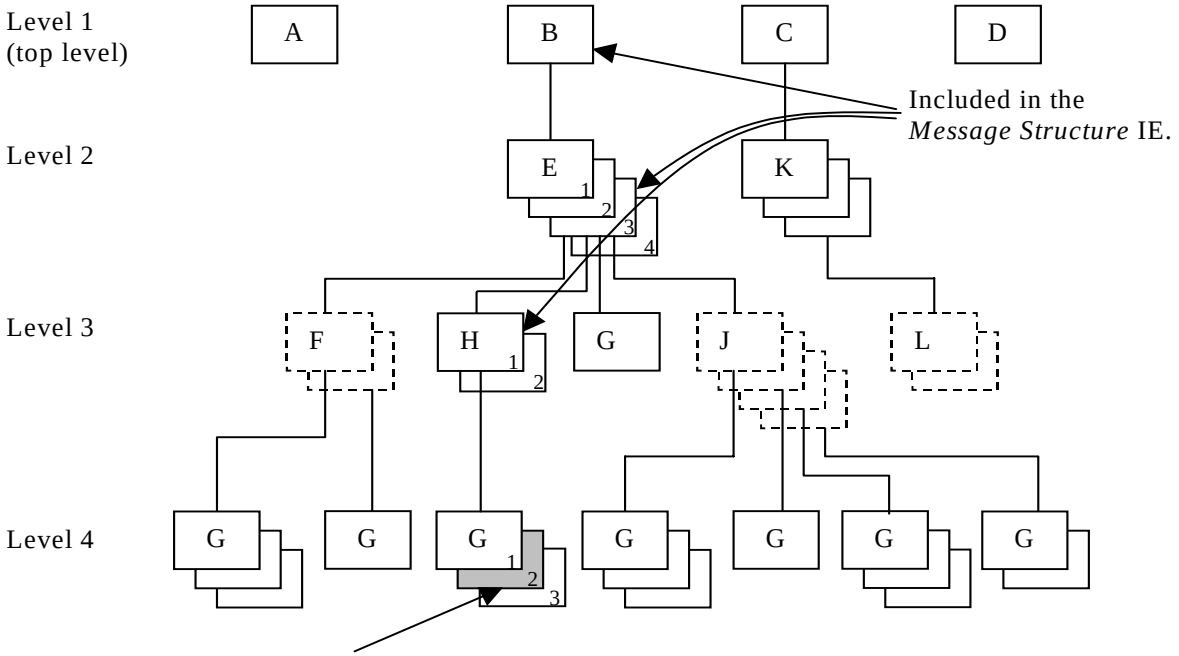



**Figure C.4: Example of a received NBAP message containing a not comprehended IE**

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | ignore and notify | Criticality for IE on the reported level, i.e. level 4. |
| IE ID | id-G | IE ID from the reported level, i.e. level 4. |
| Repetition Number | 2 | Repetition number on the reported level, i.e. level 4. |
| Type of Error | not understood | |
| Message Structure, *first repetition* | | |
| >IE ID | id-B | IE ID from level 1. |
| Message Structure, *second repetition* | | |
| >IE ID | id-E | IE ID from level 2. |
| >Repetition Number | 3 | Repetition number from level 2. |
| Message Structure, *third repetition* | | |
| >IE ID | id-H | IE ID from the lowest level above the reported level, i.e. level 3. |
| >Repetition Number | 1 | Repetition number from the lowest level above the reported level, i.e. level 3. |

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

## C.3.4 Example 4

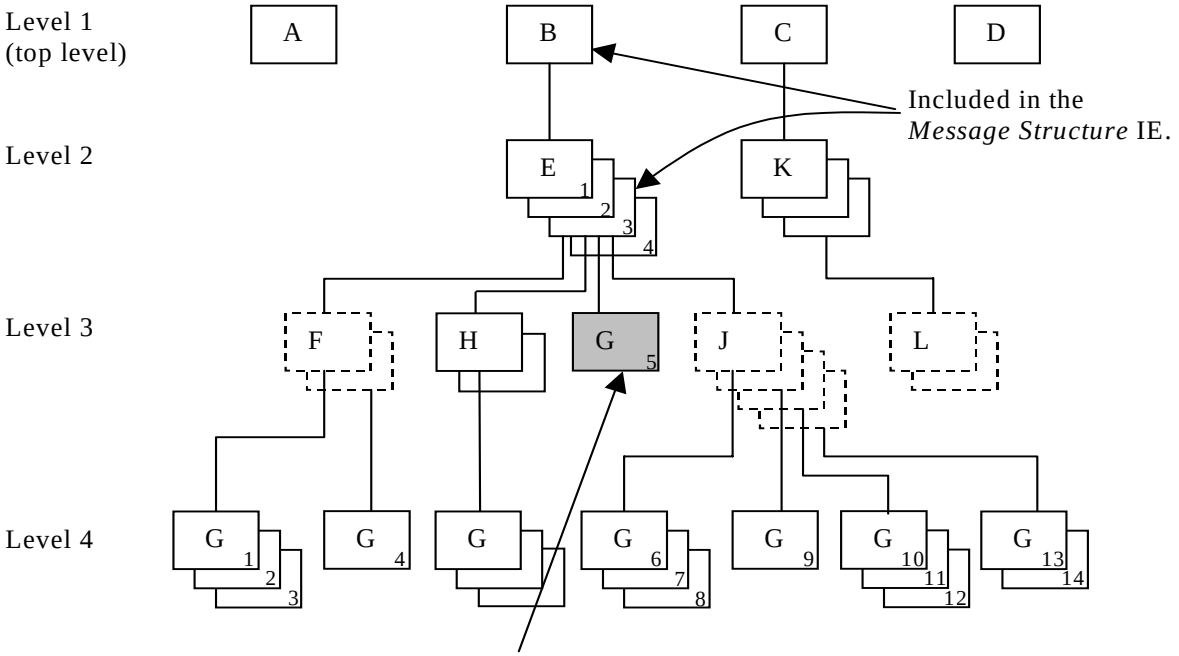



**Figure C.5: Example of a received NBAP message containing a not comprehended IE**

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 3. |
| IE ID | id-G | IE ID from the reported level, i.e. level 3. |
| Repetition Number | 5 | Repetition number on the reported level, i.e. level 3.<br>(Since the IE E (level 2) is the lowest level included in the *Message Structure* IE this is the fifth occurrence of IE G within the IE E (level 2). |
| Type of Error | not understood | |
| Message Structure, *first repetition* | | |
| >IE ID | id-B | IE ID from level 1. |
| Message Structure, *second repetition* | | |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition Number | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

## C.3.5 Example 5

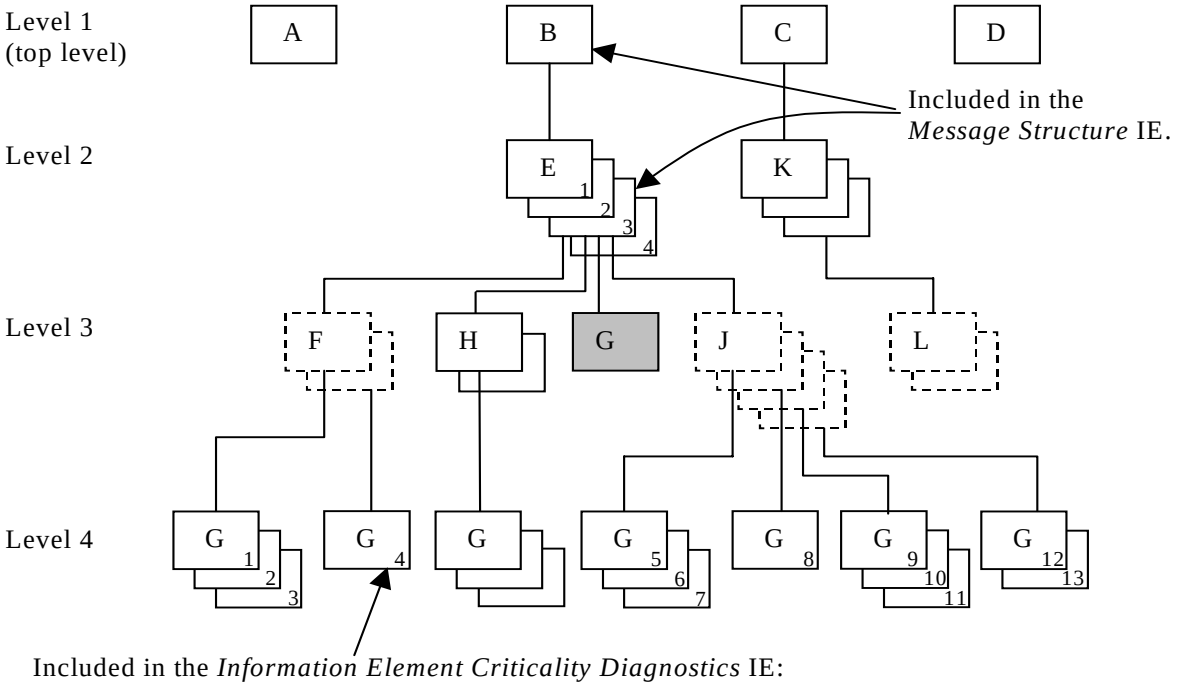



**Figure C.6: Example of a received NBAP message with a missing IE**

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 3. |
| IE ID | id-G | IE ID from the reported level, i.e. level 3. |
| Repetition Number | 4 | Repetition number up to the missing IE on the reported level, i.e. level 3.<br>(Since the IE E (level 2) is the lowest level included in the *Message Structure* IE there have been four occurrences of IE G within the IE E (level 2) up to the missing occurrence. |
| Type of Error | missing | |
| Message Structure, *first repetition* | | |
| >IE ID | id-B | IE ID from level 1. |
| Message Structure, *second repetition* | | |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition Number | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

# C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
    ProtocolIEs         ProtocolIE-Container        {{ExampleMessage-IEs}},
    ProtocolExtensions  ProtocolExtensionContainer  {{ExampleMessage-Extensions}}   OPTIONAL,
    ...
}

ExampleMessage-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-A   CRITICALITY reject  TYPE A  PRESENCE mandatory} |
    { ID id-B   CRITICALITY reject  TYPE B  PRESENCE mandatory} |
    { ID id-C   CRITICALITY reject  TYPE C  PRESENCE mandatory} |
    { ID id-D   CRITICALITY reject  TYPE D  PRESENCE mandatory} ,
    ...
}

B ::= SEQUENCE {
    e               E-List,
    iE-Extensions   ProtocolExtensionContainer { {B-ExtIEs} }   OPTIONAL,
    ...
}

B-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }

E-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-E   CRITICALITY ignore  TYPE E  PRESENCE mandatory  }
}

E ::= SEQUENCE {
    f               F-List,
    h               H-List,
    g               G-List1,
    j               J-List,
    iE-Extensions   ProtocolExtensionContainer { {E-ExtIEs} }   OPTIONAL,
    ...
}

E-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-List ::= SEQUENCE (SIZE (1..maxF)) OF F

F ::= SEQUENCE {
    g               G-List2 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {F-ExtIEs} }   OPTIONAL,
    ...
}

F-ExtIEs    NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List2 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G2-IEs} }

G2-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY ignore  TYPE G  PRESENCE mandatory  }
}

H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }

H-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-H   CRITICALITY ignore  TYPE H  PRESENCE mandatory  }
}

H ::= SEQUENCE {
    g               G-List3 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
    ...
}

H-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G3-IEs} }

G3-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY notify  TYPE G  PRESENCE mandatory  }
}

G-List1 ::= ProtocolIE-Single-Container { {G1-IEs} }

G1-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY reject  TYPE G  PRESENCE mandatory  }
}

J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J

J ::= SEQUENCE {
    g               G-List4 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {J-ExtIEs} }   OPTIONAL,
    ...
}

J-ExtIEs    NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G4-IEs} }

G4-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY reject  TYPE G  PRESENCE mandatory  }
}

C ::= SEQUENCE {
    k               K-List,
    iE-Extensions   ProtocolExtensionContainer { {C-ExtIEs} }   OPTIONAL,
    ...
}

C-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }

K-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-K   CRITICALITY notify  TYPE K  PRESENCE mandatory  }
}

K ::= SEQUENCE {
    l               L-List,
    iE-Extensions   ProtocolExtensionContainer { {K-ExtIEs} }   OPTIONAL,
    ...
}

K-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

L-List ::= SEQUENCE (SIZE (1..maxL)) OF L

L ::= SEQUENCE {
    m               M   OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {L-ExtIEs} }   OPTIONAL,
    ...
}

L-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ExampleMessage-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

# Annex D (normative): IB_SG_DATA Encoding

## D.1 Overall Description

There exist two variants for encoding *IB_SG_DATA* IE (see section 9.2.1.32), which are detailed in subsections below. To avoid incorrect transmission of System Information on Uu, the following behaviour is required:

- For each Iub, CRNC shall use the encoding variant supported by the Node B for the *IB_SG_DATA* IE (see section 9.2.1.32) when sending the SYSTEM INFORMATION UPDATE REQUEST message to the Node B. This is supported by configuration in the CRNC.

## D.2 IB_SG_DATA Encoding Variant 1

This variant corresponds to the algorithm, that ASN.1 length encoding for the conveyed SIB segment is performed by the RNC. Building of IB_SG_DATA segments involves two steps:

1) Segmentation of MIB/SIB/SB and

2) RRC encoding of the segments, which includes the PER encoding of the length in case of "SIB data variable".

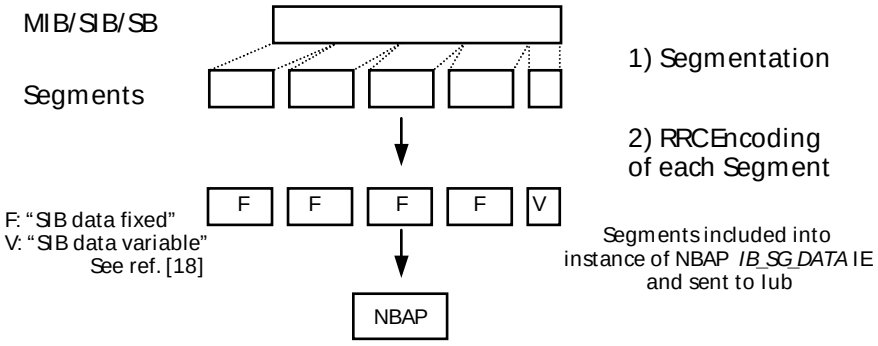



**Figure D.1: The Building of Segments**

## D.3 IB_SG_DATA Encoding Variant 2

This variant corresponds to the algorithm, that ASN.1 length encoding for the conveyed segment is not performed by the RNC. Segments are built in the CRNC by segmentation of a MIB/SIB/SB.

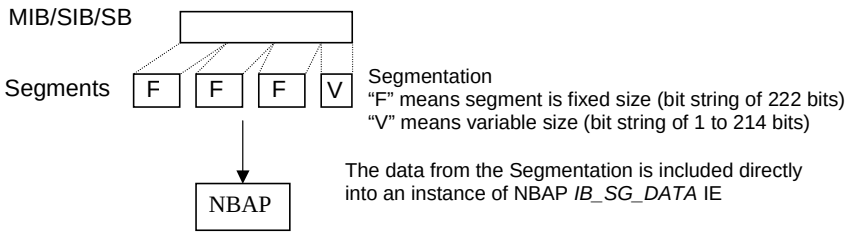



**Figure D.2: The Building of Segments**

# Annex E (informative): Change history

| Change history | | | | | |
|---|---|---|---|---|---|
| TSG RAN# | Version | CR | Tdoc RAN | New Version | Subject/Comment |
| RAN_06 | - | - | RP-99764 | 3.0.0 | Approved at TSG RAN #6 and placed under Change Control |
| RAN_07 | 3.0.0 | - | - | 3.1.0 | Approved at TSG RAN #7 |
| RAN_08 | 3.1.0 | - | RP-000250 | 3.2.0 | Approved at TSG RAN #8 |
| RAN_08 | 3.1.0 | - | RP-000251 | 3.2.0 | Approved at TSG RAN #8 |
| RAN_08 | 3.1.0 | - | RP-000252 | 3.2.0 | Approved at TSG RAN #8 |
| RAN_08 | 3.1.0 | - | RP-000253 | 3.2.0 | Approved at TSG RAN #8 |
| RAN_09 | 3.2.0 | 165 168-170, 173-178, 180-189 | RP-000386 | 3.3.0 | Approved at TSG RAN #9 |
| RAN_09 | 3.2.0 | 190-200, 203 205 207 208 211 214 218-219 | RP-000387 | 3.3.0 | Approved at TSG RAN #9 |
| RAN_09 | 3.2.0 | 221 222 224-228 233 244, 246 | RP-000388 | 3.3.0 | Approved at TSG RAN #9 |
| RAN_09 | 3.2.0 | 247-248 | RP-000389 | 3.3.0 | Approved at TSG RAN #9 |
| RAN_10 | 3.3.0 | 250-324 | RP-000627 RP-000628 RP-000630 RP-000697 | 3.4.0 | Approved at TSG RAN #10 |
| RAN_10 | 3.4.0 | | | 3.4.1 | Correct of headers |
| RAN_11 | 3.4.1 | 325-330, 333-336, 339-342, 344, 346-348, 350-356, 365, 367-371, 377-379, 383, 385-386, 388 | RP-010125 RP-010126 | 3.5.0 | Approved at TSG RAN #11 |
| | | | | | |

| Change history | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | **TSG #** | **TSG Doc.** | **CR** | **Rev** | **Subject/Comment** | **Old** | **New** |
| March 01 | 11 | RP-010160 | 373,387 | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 |
| March 01 | 11 | RP-010166 | 361 | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 |
| March 01 | 11 | RP-010159 | 372,374,381 | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 |
| March 01 | 11 | RP-010164 | 358,359 | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 |
| March 01 | 11 | RP-010167 | 362 | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 |
| 06/2001 | 12 | RP-010383 | 390,392,394,396,398,400,402,404,406 | | Approved at TSG RAN #12 | 4.0.0 | 4.1.0 |
| 06/2001 | 12 | RP-010384 | 412,416,421,423,427,431,433,437,439,441 | | Approved at TSG RAN #12 | 4.0.0 | 4.1.0 |
| 06/2001 | 12 | RP-010385 | 449,456,462,464,467 | | Approved at TSG RAN #12 | 4.0.0 | 4.1.0 |
| 06/2001 | 12 | RP-010396 | 413,414,415,416,417,418,419,450,451,452,453,454,465 | | Approved at TSG RAN #12 | 4.0.0 | 4.1.0 |
| 09/2001 | 13 | RP-010587 | 410 | 2 | Ambiguity in CM handling | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 472 | | Correction to Information Block Deletion | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 476 | | Clarification of the AICH power | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 479 | 1 | Transport bearer replacement clarification | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 481 | 1 | Corrections to the PDSCH Code Mapping IE | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 484 | 1 | Correction to the handling of DL Code Information in RL Reconfiguration procedures | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 485 | 1 | Correction to the Error handling of the ERROR INDICATION message | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 486 | | Correct max Codes discrepancy between tabular and ASN.1 | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 488 | | S-CCPCH Corrections for TDD | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010587 | 491 | 1 | Nbap criticality | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 500 | 1 | Clarification of Abnormal Conditions/Unsuccessful Operation | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 504 | | Error handling of erroneously present conditional IEs | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 507 | 1 | Correction for maxNrOfCPCHs | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 509 | 1 | Correction for N_EOT | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 513 | | Bitstrings ordering | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 517 | | Mapping of TFCS to TFCI | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 519 | | Correction of implementation of RAN#12 CRs | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 521 | | TDD Channelisation code range definition | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 524 | 1 | Clarification of chapter 10 | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 526 | | Clarification of use of Diversity Control Indicator | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010588 | 528 | 3 | Clarification of coordinated DCHs | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010599 | 468 | 2 | Allowed Combinations of Dedicated Measurement Type and the Reporting Characteristics Type | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010599 | 470 | | Support of 8PSK modulation for LCR TDD | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010599 | 473 | | DPC Mode in Radio Link Addition procedure | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010599 | 475 | | Correction on NBAP function | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010599 | 498 | 1 | Adding protocol container in CHOICE type IE | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010599 | 501 | 1 | Clarification of Abnormal Conditions/Unsuccessful Operation | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010599 | 515 | 1 | Corrections to position reporting | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010599 | 518 | 2 | CR to 25.433 v4.1.0: RX timing deviation as dedicated measurement for 1.28Mcps TDD | 4.1.0 | 4.2.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 09/2001 | 13 | RP-010599 | 522 | 1 | Clarification on the Time Slot LCR | 4.1.0 | 4.2.0 |
| 10/2001 | - | - | - | - | Editorial correction to correct the header | 4.2.0 | 4.2.1 |
| 12/2001 | 14 | RP-010897 | 530 | 2 | CR on Priority range | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 534 | | Bitstrings ordering | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 536 | | Added UTRAN modes in the IE Type and Reference and Semantics Description in IEs in NBAP messages | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 538 | | Alignment to RAN4 spec for Transmitted Code Power Measurement | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 540 | | Correction the Clause 10 Error Handling | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 542 | | Clarification of TrCh Ordering in TFCS | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 544 | | Addition of SIB15.4 and SIB18 to tabular | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 550 | | Transmit Diversity for TDD | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 552 | | Clarification for the definition of the ASN.1 constants | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010862 | 559 | 1 | Terminology Corrections | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 560 | 1 | Rel-4 specific terminology corrections | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 562 | | Procedure Code Criticality in Error Indication | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 565 | | Clarification for the Power Adjustment Type IE in the DL POWER CONTROL REQUEST message | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 567 | 1 | Forward Compatibility for DL Power Balancing | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 569 | | Reconfiguration clarification | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 571 | 2 | Addition of amendment to clarify the PER encoding of bitstrings | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 575 | 2 | Transport Bearer replacement clarification for the DSCH case | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 577 | | Clarification of the Transaction ID | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 579 | 1 | CPCH-related corrections | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010863 | 582 | | Correction of S field length | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010874 | 546 | 1 | Correction of drift rate resolution | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010874 | 547 | | Cell Parameter ID IE definition for 1.28Mcps TDD | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010874 | 548 | | Amendment of the RADIO LINK ADDITION RESPONSE TDD message for LCR TDD | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010874 | 580 | 2 | SFN-SFN quality indication | 4.2.1 | 4.3.0 |
| 12/2001 | 14 | RP-010912 | 545 | 1 | Correction to SFN-SFN Observed Time Difference Measurement report mapping | 4.2.1 | 4.3.0 |
| 03/2002 | 15 | RP-020174 | 591 | 1 | Incorrect Physical Shared Channel TDD Procedure definition in ASN.1 | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020174 | 593 | | Removal of criticality information for Transaction ID in the ERROR INDICATION message | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020174 | 600 | | Clarification to measurement unit at Higher Layer Filtering. | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020174 | 605 | | Correction of the Limited Power Increase in Synchronised Radio Link Reconfiguration Preparation | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020174 | 623 | 1 | Correction to physical channels which SCTD can be applied (Iub) | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020182 | 585 | 1 | Corrections to the Information Exchange Initiation procedure | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020182 | 586 | 1 | Correction to UE position measurements quality and threshold information | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020182 | 587 | 1 | Correction to UE position measurements change and deviation limit formulas | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020182 | 601 | 1 | Modification of the T_utran-gps length | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020182 | 606 | | Amendment of the COMMON MEASUREMENT INITIATION REQUEST message | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020182 | 609 | 1 | ASN.1 and tabular amendments for LCR TDD | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020182 | 610 | | Midamble shift LCR in the PHYSICAL SAHRED SCHANNEL RECONFIGURATION REQUEST [TDD] message | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020182 | 617 | | NBAP Rapporteur corrections | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020231 | 628 | 2 | Removing of channel coding option "no coding" for FDD | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020188 | 425 | 4 | DL Power Capability as a shared resource between Cells | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020188 | 496 | 4 | Power Balancing Activation with Radio Link Setup and Radio Link Addition procedures in NBAP | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020188 | 497 | 3 | Power Balancing Restart with Radio Link Reconfiguration procedure in NBAP | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020188 | 502 | 2 | Initial DL Power After addition of CCTrCH in Synchronized Reconfiguration | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020194 | 583 | | NBAP Signalling support for flexible hard split | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020193 | 584 | 3 | Add IPDL parameters for LCR TDD in CELL SETUP REQUEST and CELL RECONFIGURATION REQUEST in NBAP message. | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020198 | 588 | 1 | Re-arrangement of Iub Transport Bearers | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020190 | 589 | 2 | HSDPA NBAP Common Procedure Modifications | 4.4.0 | 5.0.0 |

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| 03/2002 | 15 | RP-020189 | 597 | 2 | Introduction of IP Transport option in UTRAN | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020188 | 598 | | Introduction separate max PDSCH power limitation | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020199 | 602 | 2 | Separation of Resource Reservation and Radio Link Activation | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020196 | 603 | | Introduction of RL Timing Adjustment support | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020193 | 607 | 1 | Introduction of the Neighbouring TDD Cell Measurement Information LCR | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020191 | 608 | 2 | Node B synchronisation for 1.28Mcps TDD | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020190 | 612 | 3 | HSDPA RL-Level Signalling for TDD & FDD | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020193 | 613 | 1 | Introduction of Angle of Arrival enhanced UE positioning for 1.28Mcps TDD in NBAP | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020194 | 626 | | NBAP changes for TFCI power control in DSCH hard split mode | 4.4.0 | 5.0.0 |
| 06/2002 | 16 | RP-020412 | 595 | 3 | Introduction of Qth signalling in UTRAN | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 633 | | Criticality Information Decoding Failure Handling | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 636 | 1 | Alignment of tabular and ASN.1 coding for DL power | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 639 | 1 | Correction to RL Restore Indication | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 648 | | Use of PDSCH RL ID for TDD DSCH/USCH | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 652 | | Clarification on the Neighboring TDD Cell Measurement information | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 654 | | Introduction of SIB | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 655 | | Removal of syntax errors from ASN.1 | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 656 | | Interaction between HSDPA and IP transport in UTRAN | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 658 | 1 | Interaction between HSDPA and Bearer Re-arrangement | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 659 | | Correction to Implementation of Rel-5 | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 662 | | Correction to the use of the CFN IE / SFN IE in the Measurement Initiation procedures | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 665 | | TFCI 0 definition for TDD | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 670 | 1 | NBAP Review – Alignment on the ASN.1 | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 672 | 1 | NBAP Review  Alignment of the ASN.1 | 5.0.0 | 5.1.0 |

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| 06/2002 | 16 | RP-020412 | 675 | | Definition of quality figures for SFN-SFN and Tutran-gps measurement value information | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 686 | 1 | Clarification for the usage of the cause value | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 693 | 2 | HS-DSCH Initial credits F | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020412 | 698 | 1 | TFCI2 bearer clarification | 5.0.0 | 5.1.0 |
| 09/2002 | 17 | RP-020612 | 706 | | WG4 Reference Corrections | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020614 | 708 | | Rx Timing Deviation (TDD) corrections | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020616 | 710 | | Clarification on the Common Measurement Reporting procedure | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020628 | 711 | 1 | Correction of HSDPA Common Configuration | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020628 | 712 | | TFCI2 Bearer correction for IP transport | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020628 | 686 | 1 | Partial dedicated measurement reporting | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020647 | 713 | 3 | CQI and ACK/NACK Repetition Factor and Power Offset and k-value | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020622 | 714 | | Change of Maximum Number of HS-SCCH Codes | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020618 | 715 | 1 | Clarification for the initial power of the power balancing (Pinit) | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020619 | 716 | | Removal of BLER for HS-DSCH | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020617 | 717 | 1 | Correction for inconsistency in length of TFCI field 3 | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020629 | 514 | | One possible invisible implementation for UTRAN pure systems of GERAN specific LCS change in RANAP | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020589 | 721 | 1 | Replacing all occurences of $P_{SIR}(k)$ by $P_{curr}$ in 25.423 | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020623 | 725 | 1 | RL Parameter Update Procedure | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020630 | 727 | 2 | IP_offset correction | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020613 | 729 | 2 | Uplink Synchronisation in 1.28Mcps TDD | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020609 | 733 | 2 | Modification of PICH Parameters LCR TDD | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020604 | 739 | 1 | Handling of conflicting specification text | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020609 | 741 | 1 | Correction to the specification of Optional IEs | 5.1.0 | 5.2.0 |
| 12/2002 | 18 | RP-020754 | 747 | | Alignment of Error Indication procedure text to the latest RNSAP | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020758 | 749 | | Add UL SIR_target for Unsynchronized RL Reconfiguration in 1.28Mcps TDD | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020757 | 751 | | Correction to RX Timing Deviation LCR value range | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020759 | 753 | 2 | Slot Format for 1.28Mcps TDD | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020754 | 755 | | SYNC_DL_Code ID for 1.28Mcps TDD | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020773 | 756 | 1 | Measurement power offset signalling for HSDPA | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020768 | 757 | | Power offset values for HS-DPCCH | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020855 | 764 | 3 | MAC-hs Window Size | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020754 | 767 | 1 | Clarification on the Minimum Spreading Factor for TDD | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020767 | 770 | 1 | Addition of the second TDD Channelisation Code of HS-SCCH for the 1.28Mcps TDD option. | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020765 | 772 | 1 | Clarfication of the usage of HS-DSCH-RNTI | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020754 | 780 | | Clarification to RACH for 1.28Mcps TDD | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020763 | 781 | | Correction for the definition of the MAC-hs Reordering Buffer Size IE | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020766 | 782 | | Clarification for the inclusion of the DL Power Balancing Updated Indicator IE | 5.2.0 | 5.3.0 |
| 12/2002 | 18 | RP-020744 | 785 | | Correction for the DL DPDCH transmission | 5.2.0 | 5.3.0 |
| 03/2003 | 19 | RP-030068 | 791 | | Clarification to DL Power definition for TDD | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030077 | 792 | 3 | Correction to DL Tx Power for TDD | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030072 | 794 | | TPC Step Size for TDD | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030069 | 796 | | Clarification to 2nd Interleaving Mode for TDD | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030063 | 797 | 2 | HS-PDSCH Code and Timeslot Resource Assignment for TDD | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030078 | 798 | 1 | HS-PDSCH NBAP Corrections for TDD | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030073 | 800 | 1 | Clarification of HS-SCCH power offset usage in case of multiple HS-SCCHs | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030081 | 801 | 1 | HS-DSCH: addition of non-HS-DSCH power measurement | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030080 | 803 | 1 | Measurement for HS-SICH Outer Loop Power Control | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030082 | 806 | 1 | Corrections to Channelisation Code TFCI Mapping for TDD | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030070 | 808 | | Correction for the Information Exchange Initiation procedure | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030074 | 809 | 1 | T1 signalling for HSDPA | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030071 | 811 | | Midamble Configuration for Midamble Shift LCR | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030066 | 818 | | Corrections to DCH Combining in RL SETUP and RL ADDITION | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030059 | 823 | | Correction of PRACH Midamble for 1.28Mcps TDD | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030076 | 827 | 2 | Guaranteed Bit Rate for HSDPA | 5.3.0 | 5.4.0 |
| 06/2003 | 20 | RP-030332 | 833 | | Alignment of TDD HSDPA parameters to RAN2 and RAN 1. | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030278 | 834 | | Non HSDPA Code Power Measurement for TDD | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030333 | 835 | | HSDPA General Corrections | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030320 | 840 | | Alignment of maximum HS DSCH code numbers to 25.211 | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030320 | 841 | | Correction in the tabular format of the CELL SYNCHRONISATION REPORT [TDD] message | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030320 | 842 | | Clarification of optional IEs for Node B synchronisation for LCR TDD | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030334 | 843 | | TDD Channelisation Code LCR correction for HSDPA | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030325 | 845 | | GPS trigger condition | 5.4.0 | 5.5.0 |

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| 06/2003 | 20 | RP-030329 | 850 | 1 | HS-SCCH Change Indicator | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030335 | 854 | | Correction to HARQ Memory Partitioning | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030337 | 855 | | Correction for the value range of 'CQI Feedback cycle, k' | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030336 | 856 | 1 | Clarification for the handling of the HS-DSCH | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030320 | 857 | 1 | Clarification of SCCPCH maximum power for TDD | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030328 | 859 | 2 | Resource handling of HS-DSCH Guaranteed Bit Rate | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030324 | 862 | | Alignment of the Requested Data Value Information IE description | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030320 | 865 | | HS-SCCH Code deletion/replacement with Physical Shared Channel Reconfiguration | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030326 | 867 | | Correction of Failure message used for logical errors | 5.4.0 | 5.5.0 |
| 09/2003 | 21 | RP-030451 | 868 | 2 | Discard timer signalling for HSDPA | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030452 | 869 | 1 | Phase Reference Signalling Support | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030449 | 874 | 2 | HS-DSCH Priority Queue to Modify | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030536 | 875 | 2 | MAC-hs Reordering Buffer Size | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030441 | 876 | 1 | Correction of HS-SCCH Code IE | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030441 | 877 | 1 | Power configuration of PDSCH for TDD | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030443 | 881 | | Corrections to Tx Diversity | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030444 | 884 | | 'On Modification' and 'Periodic' reporting alignment for Information Exchange procedures | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030445 | 886 | | Alignment of title and sub-clause text of chapter 10.3.4.2 | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030446 | 887 | 1 | Removal of the note in chapter 10 | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030441 | 888 | 1 | Correction for the start code number of HS-PDSCH | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030447 | 890 | 2 | Coordination with RRC about the TFS of DL DCH for HS-DSCH | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030453 | 893 | 2 | HS-DSCH information usage description correction | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030441 | 894 | | Correction of CR 609 implementation error on definition of end of audit sequence indicator and dwPCH power | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030441 | 898 | 2 | Clarification to the Constant Value for TDD | 5.5.0 | 5.6.0 |
| 12/2003 | 22 | RP-030674 | 900 | 1 | Correction of wrong number in GPS Timing calculation | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030687 | 901 | | Correction for the HS-DSCH Initial Capacity Allocation | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030688 | 902 | | Correction of Backward Compatibility for Uni-directional DCH indicator | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030692 | 903 | | Reconfiguration of Multiple Radio Links in TDD | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030693 | 904 | | The usage of the MAC-hs Reordering Buffer Size | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030679 | 907 | | Correction for the Dedicated Measurement procedure with all Node B Communication Context | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030674 | 913 | | Correction of the repetition name for 1.28Mcps TDD in the RADIO LINK RECONFIGURATION PREPARE TDD message | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030674 | 915 | 1 | Correction of Node B synchronisation procedures | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030674 | 917 | | Correction of the ProtocolIE-Single-Containers in ASN.1 for TDD | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030674 | 919 | | ASN.1 corrections for 1.28Mcps TDD | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030679 | 920 | 1 | TDD-Review Corrections for NBAP Rel-5 | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030691 | 921 | 1 | Range Extension for GPS Almanac Reporting | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030713 | 925 | 2 | 'Explicit HARQ Memory Partitioning Clarification' | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030674 | 927 | | Clarification of Timing advance applied for 1.28Mcps TDD | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030684 | 931 | 1 | Removal of the ambiguity about the activation time | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030679 | 933 | | Ambiguity of the activation time of the Physical Shared CH Reconfiguration | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030690 | 937 | 1 | Correction to Addition of HS-DSCH MAC-d Flows | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030679 | 938 | 1 | Resource Status Indication and Audit for HSDPA | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030695 | 939 | 1 | Unsynchronised RL Reconfiguration for HSDPA | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030694 | 940 | 2 | TNL QoS for uplink IP traffic | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030689 | 941 | | Correction of Transmission Gap Pattern Sequence Information | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030679 | 945 | 2 | NBAP Review | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030679 | 946 | 1 | Correction to Physical Shared Channel Reconfiguration for HSDPA | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030679 | 947 | 1 | Correction to Common Measurements for HSDPA | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030683 | 949 | | Information Exchange Initiation behavior correction | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030674 | 951 | | Extension of *Requested Data Value* IE | 5.6.0 | 5.7.0 |
| 12/2003 | 22 | RP-030726 | 935 | 2 | Signalling Support for Beamforming Enhancement | 5.7.0 | 6.0.0 |
| 03/2004 | 23 | RP-040088 | 952 | | Interference measurement in UpPTS for 1.28Mcps TDD | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040071 | 954 | 1 | Enabling of closed loop transmit diversity in TDD mode | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040071 | 956 | | Correction of Reconfiguration of Multiple Radio Links in TDD | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040065 | 960 | | Corrections for HS-DSCH Configuration Signalling | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040066 | 962 | 1 | Priority Queue ID for HSDPA | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040071 | 968 | 1 | Correction of the Dedicated Measurement Initiation procedure with 'All NBCC' | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040058 | 972 | 1 | NBAP ASN.1 Corrections for the CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD message | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040071 | 974 | | NBAP Corrections for TDD | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040068 | 978 | | Extension of the range of PCCPCH RSCP | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040069 | 980 | | Introduce the description of AOA measurement in the Allowed Combinations of Dedicated Measurement | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040067 | 983 | | Correction Related to HS-DSCH Information Response | 6.0.0 | 6.1.0 |

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| 03/2004 | 23 | RP-040071 | 985 | | Correction to HS-SCCH Code Range | 6.0.0 | 6.1.0 |
| 03/2004 | 23 | RP-040064 | 987 | | Setting of TGPSI | 6.0.0 | 6.1.0 |
| 06/2004 | 24 | RP-040176 | 991 | 1 | Correction of PHYSICAL SHARED CHANNEL RECONFIGURATION message | 6.1.0 | 6.2.0 |
| 06/2004 | 24 | RP-040178 | 993 | | Node B usage of the MAC-hs re-ordering buffer size | 6.1.0 | 6.2.0 |
| 06/2004 | 24 | RP-040180 | 995 | 1 | Unsuccessful Operation of RL Setup Procedure for HSDPA | 6.1.0 | 6.2.0 |
| 06/2004 | 24 | RP-040184 | 997 | 1 | Measurement Recovery Behavior for Common and Dedicated Measurement Procedures | 6.1.0 | 6.2.0 |
| 06/2004 | 24 | RP-040179 | 999 | | Clarification on number of and capacity reporting of Priority Queues | 6.1.0 | 6.2.0 |
| 06/2004 | 24 | RP-040181 | 1009 | | Power Balancing Corrections | 6.1.0 | 6.2.0 |
| 06/2004 | 24 | RP-040235 | 1010 | | Addition of TSTD for S-CCPCH in 3.84 Mcps TDD | 6.1.0 | 6.2.0 |
| 09/2004 | 25 | RP-040301 | 1014 | | Use of Communication Context id in NBAP reset | 6.2.0 | 6.3.0 |
| 09/2004 | 25 | RP-040295 | 1019 | 2 | Addition of TSTD for S-CCPCH, PICH and PDSCH in 1.28 Mcps TDD | 6.2.0 | 6.3.0 |
| 09/2004 | 25 | RP-040301 | 1021 | | Re-wording of the Intra-Node B Serving HS-DSCH Radio Link Change in the Prepared Radio Link Reconfiguration procedure | 6.2.0 | 6.3.0 |
| 09/2004 | 25 | RP-040302 | 1025 | | Correction to tabular text associated with TDD DPCH Offset IE | 6.2.0 | 6.3.0 |
| 09/2004 | 25 | RP-040295 | 1029 | | Review on NBAP | 6.2.0 | 6.3.0 |
| 09/2004 | 25 | RP-040324 | 1032 | | Clarification on the FPACH configuration for 1.28Mcps TDD | 6.2.0 | 6.3.0 |
| 09/2004 | 25 | RP-040301 | 1036 | | Correction for HSDPA Ies | 6.2.0 | 6.3.0 |
| 12/2004 | 26 | RP-040434 | 1039 | | Removal of ASN ambiguity in TDD multiple RLs | 6.3.0 | 6.4.0 |
| 12/2004 | 26 | RP-040434 | 1041 | | Alignment of TFCI2/Signaling Bearer Re-arrangement IEs criticality and procedure text | 6.3.0 | 6.4.0 |
| 12/2004 | 26 | RP-040435 | 1048 | 1 | Correction to the Assigned Criticality of UL Synchronisation Parameters LCR IE for 1.28Mcps TDD | 6.3.0 | 6.4.0 |
| 12/2004 | 26 | RP-040437 | 1049 | 4 | Introduction of MBMS | 6.3.0 | 6.4.0 |
| 12/2004 | 26 | RP-040441 | 1056 | | outdated ITU-T reference | 6.3.0 | 6.4.0 |
| 12/2004 | 26 | RP-040434 | 1058 | 3 | Adaptive encoding of IB_SG_DATA | 6.3.0 | 6.4.0 |
| 12/2004 | 26 | RP-040440 | 1059 | 1 | CR for Introduction of E-DCH in NBAP | 6.3.0 | 6.4.0 |
| 12/2004 | 26 | RP-040518 | 1061 | | HS-DPCCH ACK/NACK preamble and postamble | 6.3.0 | 6.4.0 |
| 03/2005 | 27 | RP-050059 | 1068 | | Measurement Recovery Behavior in Dedicated Measurement Procedures | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050054 | 1070 | | Availability Status reference correction | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050038 | 1074 | 1 | Removal of TGPL2 | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050053 | 1076 | | Wrong HS IE referenced | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050054 | 1078 | | Measurement Power Offset IE optionality at HS-DSCH setup | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050050 | 1080 | 1 | Introduction of 'DL Transmission Branch Load' measurement | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050058 | 1081 | 2 | E-DCH NBAP ASN.1 | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050056 | 1082 | 1 | Introduction of Fractional DPCH | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050059 | 1083 | | Initial Radio Link Timing Adjustment | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050062 | 1085 | 2 | HSDPA Code Allocation/Measurement per Cell Portion | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050053 | 1087 | | Interaction between Synchronised RL Reconfiguration and RL Deletion | 6.4.0 | 6.5.0 |
| 03/2005 | 27 | RP-050053 | 1089 | | Clarification on HS-DSCH Information IE | 6.4.0 | 6.5.0 |
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| 06/2005 | 28 | RP-050254 | 1088 | 3 | Timing maintained hard HO | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050236 | 1091 | | Addition of SIB5bis in IB Type | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050233 | 1094 | | Proposed CR to 25.433 [Rel-6] on some IEs with SatID | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050233 | 1095 | | Correction to the on demand measurement with no DPCH ID in the dedicated measurement procedure for TDD | 6.5.0 | 6.6.0 |
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| 06/2005 | 28 | RP-050225 | 1099 | 2 | Feature Cleanup: Removal of CPCH | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050229 | 1100 | 1 | E-DCH general corrections and improvements | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050229 | 1103 | 2 | E-DCH Capacity Consumption Law | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050229 | 1106 | 2 | E-DCH diversity control | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050229 | 1107 | 2 | E-DCH: Provided bit-rate per logical channel priority measurement | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050229 | 1108 | 1 | E-DCH Maximum Received Total Wide Band Power | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050224 | 1110 | 1 | Feature clean-up: Removal of Compressed mode by puncturing | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050221 | 1112 | 1 | Feature clean-up: Removal of Tx diversity closed loop mode2 | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050222 | 1114 | 1 | Feature clean-up: Removal of DSCH (FDD mode) | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050218 | 1116 | 1 | Feature Clean-up: Removal of 80 ms TTI for DCH for all other cases but when the UE supports SF512 | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050220 | 1118 | | Feature Clean-up: Removal of Support of dedicated pilot as sole phase reference | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050219 | 1120 | 1 | Feature Clean-up: Removal of SSDT | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050229 | 1121 | 1 | Correction on E-RGCH Sequence Signature | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050230 | 1122 | 1 | Introduction of Bundling Feature | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050228 | 1124 | 1 | Synchronisation for MBMS p-t-m Transmissions from Multiple Cells (Simulcast) | 6.5.0 | 6.6.0 |
| 06/2005 | 28 | RP-050229 | 1125 | 1 | Alignment of NBAP with latest status of EUDCH stage 2 (TS 25.309) and RRC (TS 25.331) | 6.5.0 | 6.6.0 |
| 09/2005 | 29 | RP-050433 | 1126 | 2 | NBAP stage 3 alignment with current status | 6.6.0 | 6.7.0 |

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| 09/2005 | 29 | RP-050433 | 1127 | | E-DCH Minimum Set Reference Correction | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050444 | 1128 | 1 | Improvement of the Abnormal Conditions description of the COMMON MEASUREMENT INITIATION procedure | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050435 | 1130 | 1 | Signalling of Reference Received Total Wideband Power IE | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050435 | 1132 | | Transport Bearer Rearrangement for HSUPA | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050437 | 1135 | | Correction for Beamforming | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050440 | 1136 | 2 | Non HS transmitted power | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050433 | 1140 | | E-DCH miscellaneous corrections | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050434 | 1141 | | Maximum UE TX Power for E-DCH | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050443 | 1142 | | Addition of MBMS Notification function description | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050444 | 1143 | 1 | Proposed CR to 25.433 [Rel-6] on Correction for the measurement report for PUSCH for TDD | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050444 | 1144 | 2 | Proposed CR to 25.433 [Rel-6] on Correction for DPCH Modification in asynthronised RL reconfiguration procedure for LCR TDD | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050433 | 1145 | 2 | Serving to Non-serving power ratio | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050433 | 1146 | | EDCH cleanup | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050433 | 1147 | | Reconfiguration of E-RGCH/HICH at serving cell change | 6.6.0 | 6.7.0 |
| 09/2005 | 29 | RP-050440 | 1148 | 1 | Maximum Transmission Power and Total HS Power for Cell Portion | 6.6.0 | 6.7.0 |
| 12/2005 | 30 | RP-050700 | 1151 | 1 | Compressed Mode Reconfiguration | 6.7.0 | 6.8.0 |
| 12/2005 | 30 | RP-050699 | 1155 | 3 | NBAP clean-up | 6.7.0 | 6.8.0 |
| 12/2005 | 30 | RP-050695 | 1156 | 2 | EDCH Cell Capability Enhancement | 6.7.0 | 6.8.0 |
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| 12/2005 | 30 | RP-050694 | 1160 | 4 | HARQ Process Management for E-DCH | 6.7.0 | 6.8.0 |
| 12/2005 | 30 | RP-050694 | 1161 | 2 | E-DCH processing issue and rate limitation | 6.7.0 | 6.8.0 |
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| 12/2005 | 30 | RP-050699 | 1167 | | HSUPA DL Channel Code Allocation per Cell Portion | 6.7.0 | 6.8.0 |
| 12/2005 | 30 | RP-050696 | 1168 | 2 | Correction for HARQ Preamble and Postamble | 6.7.0 | 6.8.0 |
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| 12/2005 | 30 | RP-050696 | 1175 | | FDPCH and HS-SCCH power offset | 6.7.0 | 6.8.0 |
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| 03/2006 | 31 | RP-060064 | 1178 | 2 | E-DCH HARQ Combining Capability | 6.8.0 | 6.9.0 |
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| 03/2006 | 31 | RP-060064 | 1193 | | Clarification on serving EDCH cell change | 6.8.0 | 6.9.0 |
| 03/2006 | 31 | RP-060068 | 1196 | | Error Correction ASN.1 Radio Link Parameter Update | 6.8.0 | 6.9.0 |
| 03/2006 | 31 | RP-060063 | 1197 | | CR cross-dependencies for HS cell change by RL ADDITION | 6.8.0 | 6.9.0 |
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| 03/2006 | 31 | RP-060063 | 1204 | 1 | Correction to the on demand mesurement for the HS-SICH in the dedicated measurement procedure for TDD | 6.8.0 | 6.9.0 |
| 03/2006 | 31 | RP-060064 | 1205 | | Correction of criticality for Unirectional DCH Indictor | 6.8.0 | 6.9.0 |
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| 03/2006 | 31 | RP-060067 | 1209 | 1 | Correction on HSPA Serving Cell Change using RL Addition procedure | 6.8.0 | 6.9.0 |
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| 03/2006 | 31 | RP-060067 | 1213 | | Clarification on SCCH TPC step size for LCR TDD | 6.8.0 | 6.9.0 |
| 06/2006 | 32 | RP-060285 | 1214 | 2 | Correction to the Time Slot Format Configuration of PUSCH/PDSCH for LCR TDD | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060279 | 1216 | 2 | CR to 25.433[Rel-6] on correction for DL DPCH Power Information | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060280 | 1225 | 1 | CR cross-dependencies for E-DCH Reference Power Offset by RL ADDITION | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060280 | 1229 | 2 | Corrections to E-DCH Uplink Combination in RL SETUP and RL ADDITION | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060281 | 1233 | 1 | Correction of the common related information for E-HICH and E-RGCH | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060281 | 1235 | | E-RGCH/E-HICH Power Offset value range | 6.9.0 | 6.10.0 |

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| 06/2006 | 32 | RP-060279 | 1237 | 1 | Corrections to Combined RL Addition with HS-DSCH /E-DCH Serving change | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060280 | 1241 | 2 | E-DCH and HS-DSCH same serving cell | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060280 | 1243 | 1 | HS-DSCH Configured Indicator for Radio Link Addition | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060281 | 1245 | 1 | E-RNTI allocation on serving change | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060276 | 1249 | | Aspect of CPCH not removed for power offset | 6.9.0 | 6.10.0 |
| 06/2006 | 32 | RP-060281 | 1257 | 1 | Abnormal condition for HS-DSCH Configured Indicator IE | 6.9.0 | 6.10.0 |
| 09/2006 | 33 | RP-060506 | 1261 | 3 | Modifying HS-DSCH Physical Layer Category Info in Radio Link Reconfiguration procedure | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060506 | 1269 | 2 | Addition of the TPC step size for HS-SICH in 1.28Mcps TDD | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060501 | 1274 | 1 | Correction on the value range of E-DCH IEs | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060505 | 1276 | 2 | Corrections on physical shared channel reconfiguration | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060501 | 1278 | 1 | E-AGCH and E-RGCH/E-HICH FDD scrambling code in response messages | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060500 | 1280 | 1 | DCH combined when EDCH operation | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060505 | 1282 | | Alignment of the RL Specific E-DCH Information IE tabular format to ASN.1 | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060500 | 1286 | | Optional usage of the E-DCH Reference Power Offset IE | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060506 | 1288 | 1 | Clarification on Communication Context ID usage for the Reset Request | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060498 | 1291 | | TFCI2 bearer Cleanup for Radio link Deletion | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060506 | 1295 | 2 | Per time slot configuration of TFCI for TDD FACH type CCTrCHs | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060500 | 1304 | | Further Abnormal Conditions for E-DCH | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060505 | 1306 | | General Description for E-DCH in RL Setup procedure | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060502 | 1309 | | Introduction of new indicator for non DCH operation | 6.10.0 | 6.11.0 |
| 09/2006 | 33 | RP-060570 | 1312 | | Introduction of SIB11bis | 6.10.0 | 6.11.0 |
| 12/2006 | 34 | RP-060700 | 1316 | 1 | Correction for the max reptition of RL Information Response IE in tabular | 6.11.0 | 6.12.0 |
| 12/2006 | 34 | RP-060700 | 1322 | | Correction to an abnormal case in E-DCH RL ADDITION | 6.11.0 | 6.12.0 |
| 12/2006 | 34 | RP-060702 | 1333 | | ASN.1 correction from rapporteur | 6.11.0 | 6.12.0 |

# History

| Document history | | |
|---|---|---|
| V6.0.0 | December 2003 | Publication |
| V6.1.0 | May 2004 | Publication |
| V6.2.0 | June 2004 | Publication |
| V6.3.0 | September 2004 | Publication |
| V6.4.0 | December 2004 | Publication |
| V6.5.0 | March 2005 | Publication |
| V6.6.0 | June 2005 | Publication |
| V6.7.0 | September 2005 | Publication |
| V6.8.0 | December 2005 | Publication |
| V6.9.0 | March 2006 | Publication |
| V6.10.0 | June 2006 | Publication |
| V6.11.0 | September 2006 | Publication |
| V6.12.0 | December 2006 | Publication |